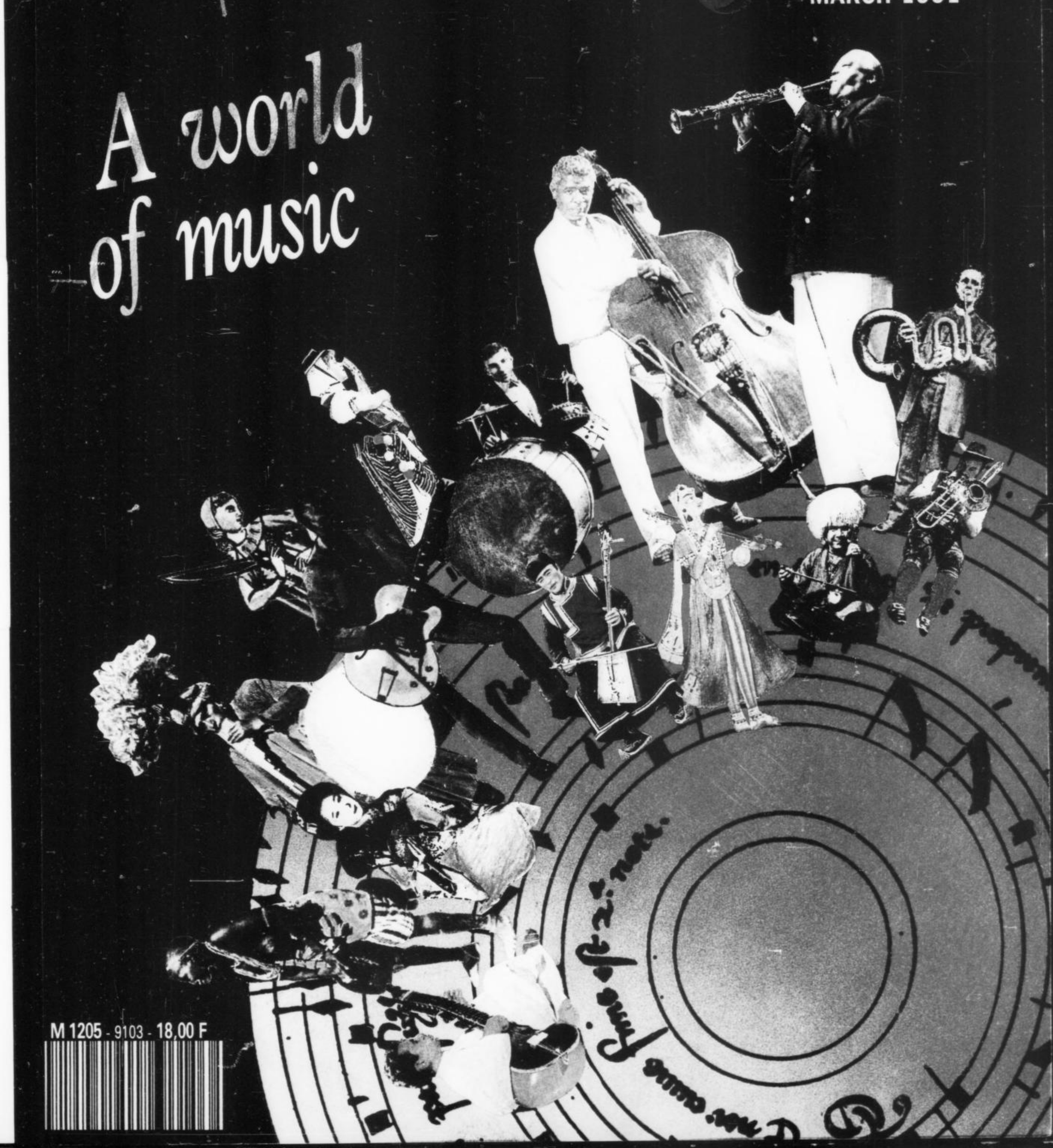
The UNESCO COURIER

INTERVIEW WITH MANU DIBANGO

MARCH 1991

A world of music



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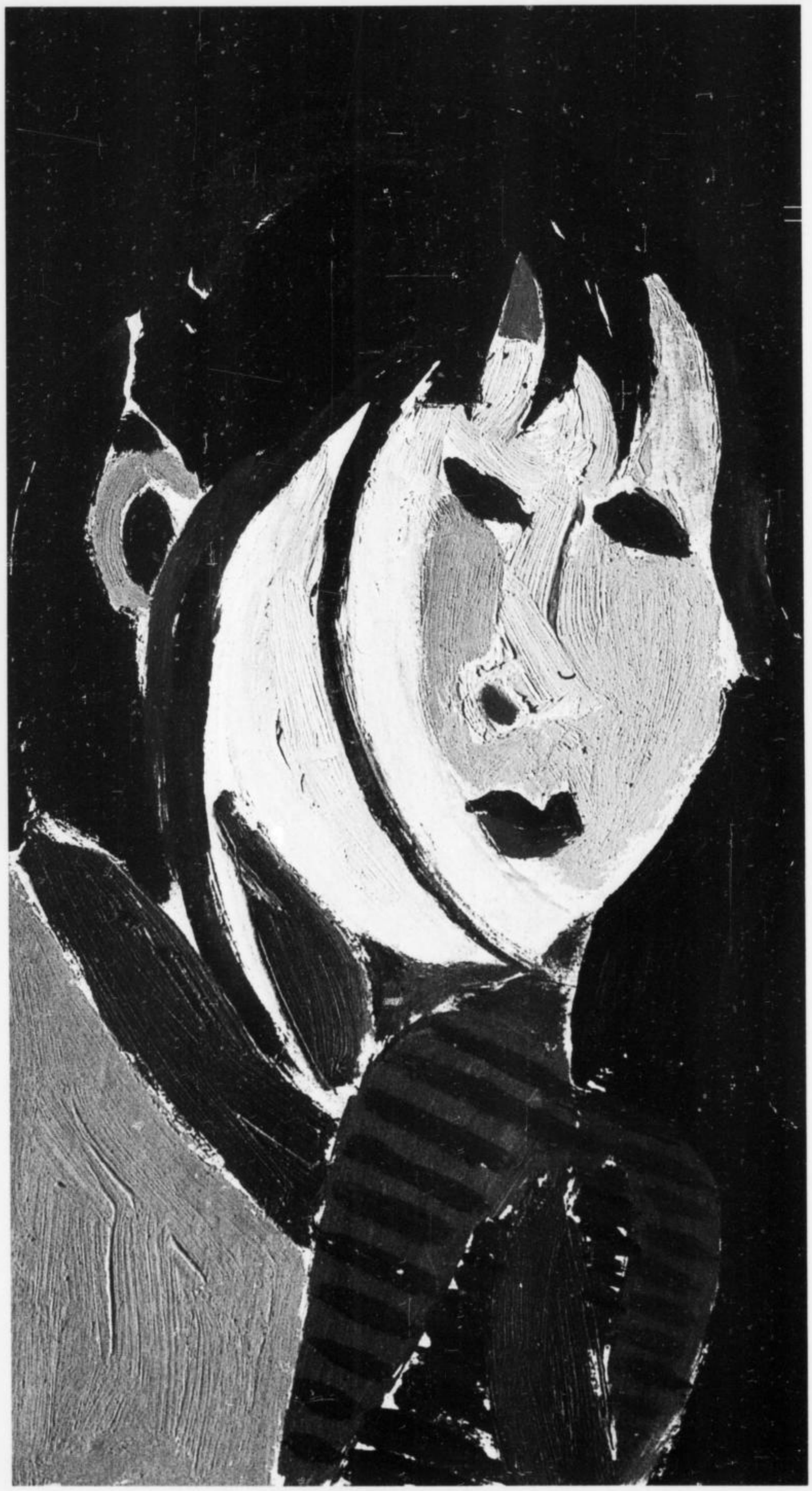
encounters

We invite readers to send us photographs to be considered for publication in this feature. Your photo should show a painting, a sculpture, piece of architecture or any other subject which seems to be an example of cross-fertilization between cultures. Alternatively, you could send us pictures of two works from different cultural backgrounds in which you see some striking connection or resemblance. Please add a short caption to all photographs.



BLUE EYES
1990, oil on canvas
(41 x 24 cm)
by Henri Landier

This work by the French painter and engraver Henri Landier has been drawn to our attention by Mme Y. Servin. "In it can be seen the white mask of a girl in a Japanese Nô play," she writes, "and echoes of a seventeenth-century painting, *Servants in a Bath-house*, appear in the slanted eyes, generous mouth, and strands of dark hair. The influence of Japanese art is equally unmistakable in the enigmatic expression, hinting at humour."

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Cover design specially created for this issue of the *UNESCO Courier* by the Iranian graphic artist Bita Seyedi.

Back cover: *In Ochre and Yellow with Sheet Music* (1990), collage and acrylic on canvas-covered panel (48.9 x 38.7 cm) by the American artist Robert Motherwell.

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Isabelle Leymarie

The UNESCO COURIER

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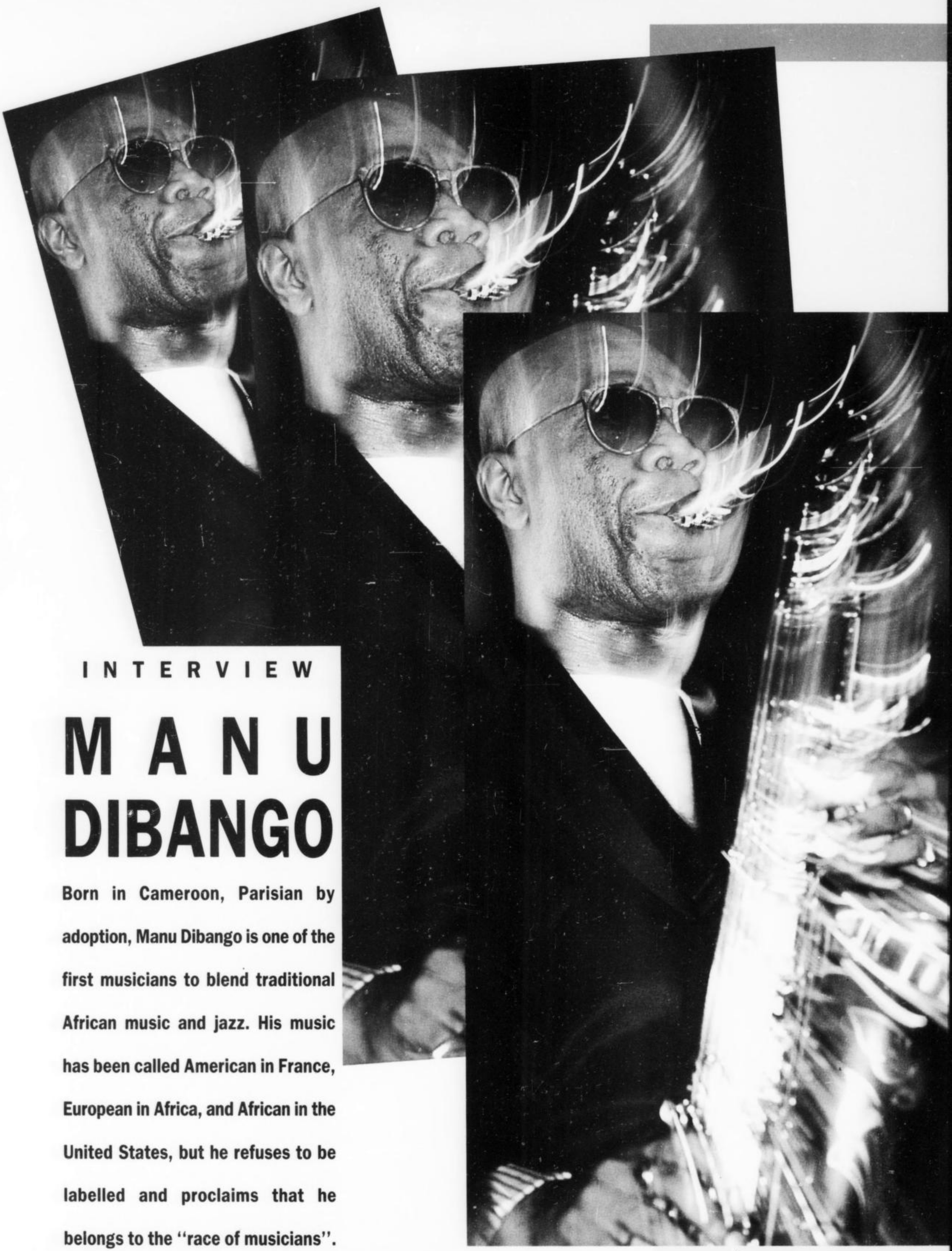
"The Governments of the States parties to this Constitution on behalf of their peoples declare,

"that since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed...

"that a peace based exclusively upon the political and economic arrangements of governments would not be a peace which could secure the unanimous, lasting and sincere support of the peoples of the world, and that the peace must therefore be founded, if it is not to fail, upon the intellectual and moral solidarity of mankind.

"For these reasons, the States parties ... are agreed and determined to develop and to increase the means of communication between their peoples and to employ these means for the purposes of mutual understanding and a truer and more perfect knowledge of each other's lives..."

Extract from the Preamble to the Constitution of UNESCO, London, 16 November 1945



INTERVIEW

MANU DIBANGO

Born in Cameroon, Parisian by adoption, Manu Dibango is one of the first musicians to blend traditional African music and jazz. His music has been called American in France, European in Africa, and African in the United States, but he refuses to be labelled and proclaims that he belongs to the "race of musicians".

■ *What are your earliest memories?*
– I was born at Douala in Cameroon. My father and mother were Protestants. When I was very young they enrolled me at the village school where I first learned Douala, one of my country's main languages. After school I went to the chapel, where my mother led the women's choir and the pastor commented on the Old and New Testaments translated into Douala. It was there that I caught the magical virus of music.

■ *Were you a musical family?*
– My father was a civil servant, a job which carried some prestige. At that time there was no radio. But we were lucky enough to have a gramophone. I listened to it surreptitiously when my parents weren't there. My mother was a dressmaker and taught apprentices at home. We sang all day long. I was the conductor. What I liked most of all was to marshal the voices into a human instrument that sounded right and true. Eventually the tunes I learned became so much a part of me that later on when I was in France and heard a Bach cantata that I had learned at chapel I thought at first that I was listening to music from back home...

■ *What kind of music did you listen to when you went out?*
– After being a German colony, Cameroon became a French protectorate. When the French navy came to Douala, they brought modern Western music with them. African performers played in the bars and hotels where white people stayed. When the Africans came back to the district where they lived, they taught us the fashionable tunes. Well, more or less... We children changed these approximations in our turn. There was also initiation music, which was played with drums and wooden instruments such as tom-toms. And we heard traditional guitarists at weddings and funerals.

■ *But the guitar isn't an African instrument...*
– Yes and no. The guitar reached Cameroon with the Portuguese in the fourteenth century. In Cameroon we use the guitar to play *assico,* dance music which is also found in Nigeria. Its rhythm is binary and not ternary like jazz. The Cameroonian guitarist achieved the feat of playing tunefully, harmoniously and percussively.

There was also another form of popular music, Ambass B, an abbreviation for "Ambassade de Belgique", a derivative of *assico,* but more strongly marked by Western influences. This music originated with the Africans who worked for the whites. Within a few years it had become popular. It's immediately recognizable, with a harmony from the West and a typically Cameroonian rhythm.

■ *When you heard Western music in Cameroon, did you feel that you were listening to foreign music?*
– When I was a child I didn't know the difference. We assimilated the songs we learned from the sailors and gave them a flavour of our own. We were curious and absorbed all forms of music without troubling to find out in each case what came from the blacks and what came from the whites....

■ *What about instruments?*
– My African schoolteacher played the violin and the piano. The Cameroonians quickly adopted the musical instruments introduced by the Westerners. Some Cameroonians even played string quartets.... I came across these instruments at the chapel and at home. They were part of my life.

■ *How did you become a musician?*
– My elder brother had a guitar. I wasn't allowed to touch it, of course—that's why I played it! I also had a harmonica that my father had bought. I was feeling my way. It was only when I arrived in France at the age of fifteen that my father paid for me to have piano lessons. I soon realized that I was a musician because I loved music. But at that time I never dreamed of becoming a professional.

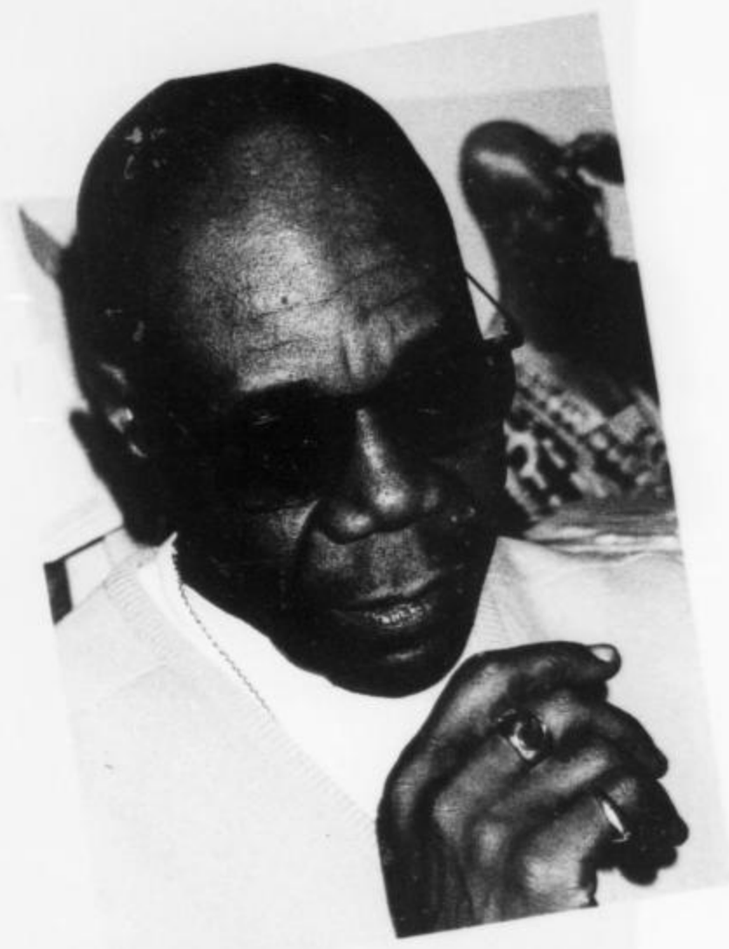
■ *Why did you go to France?*
– To study for a diploma, as some of us children did in those days. I took piano lessons as well. I should have liked to learn the violin, but it was too late. You have to start when you are five.

The piano plus Protestantism add up to jazz. This is certainly one of the key factors in my musical environment. In jazz you always find traces of gospel, the religious melodies which American blacks transposed into their music. How happy I was the first time I heard Louis Armstrong humming on the radio! Here was a black voice singing tunes that reminded me of those I had learned at the temple. I immediately felt at one with the warmth of that voice and with what it was singing. The voice is the most beautiful instrument.

■ *How did you discover the saxophone?*
– By chance. I chose the piano. But the sax began as a joke between pals: "You're getting on our nerves with your piano... Can't you play the sax?" – "OK!" I accepted the challenge and then I got down to business. I took lessons. And as a good jazz-lover I daydreamed about American jazz musicians. Our heroes at that time were black American sports champions and musicians like Sugar Ray Robinson, Louis Armstrong and Duke Ellington.

■ *When was this exactly?*
– The middle and late 1940s. In Paris it was the time when Saint-Germain-des-Prés was musically a very exciting place to be. We Africans came from the provinces to Paris just to listen to jazz, Latin American music—mambo, samba—and the beguine from the Caribbean. Creole music had an important place in France in the 1950s.

■ *But jazz was your favourite music. What did it bring you?*
– A kind of freedom, fresh scope for the imagination. Jazz is the invention of a link between one continent and another—even if the story behind it is a terrible one. But the most beautiful flower can grow on a dunghill.



■ *You're thinking of slavery?*
– Of course. The dunghill is slavery and all its works. The flower is jazz, the fruit of what came from the West, on the one hand, and from Africa on the other. It is the twentieth-century music *par excellence.* It even introduces you to other kinds of music. Through jazz I discovered all the music that I love, starting with classical music. Jazz is a much more rigorous form of music than is generally thought.

■ *What do you mean by that? Aren't you contradicting what you said about freedom a moment ago?*
– Not at all. Improvisation is easier if there is a solid framework for it. In jazz you know the theme in advance; it's Gershwin or Duke Ellington. Everyone is supposed to know it. The jazz musician expresses himself within this pre-established framework. It's like the subject for

an essay at school which you have to structure into a beginning, a middle and an end. A jazz musician will never play the same piece in the same way twice. In classical music, on the other hand, you have to reproduce down to the last note exactly what the composer created. The jazz musician thus has a certain freedom—the most wonderful kind because it's the most difficult.

■ *What happened after your encounter with jazz?*

— When my parents realized that I was neglecting my studies, they stopped my allowance. I had to learn more about musical technique and literature. It was essential. In the cabarets where I worked, for example, I had to provide the accompaniment for a ballet or for a singer. This was invaluable experience and helped to shape my musical personality. I treat music like painting, and I learned to orchestrate and mix sounds and instruments—to marry colours together. Gradually I became aware of my identity.

■ *Your personal, national or cultural identity?*

— All of them. First of all there were the sounds of independence movements. At the end of the 1950s, after passing my baccalaureate, I left France and went to Brussels where I intended to continue my studies and at the same time earn my living. In 1960 negotiations were being held in Brussels under United Nations auspices about an independence agreement between Belgium and the Congo. In the Porte de Namur district where I lived, I experienced the tensions and clashes between whites and Africans. I discovered the price that history makes people pay.

All the same I had the good fortune to be hired as bandleader at the *Anges Noirs*, a fashionable nightclub run by a Cape Verdean, which was frequented by the leaders of new-born Zaire. For the first time an African band, *African Jazz*, arrived from Zaire to record in Europe. Its leader, the famous Zairian singer Joseph Kabasélé, spent his nights at the *Anges Noirs*. At that time all Brussels and all Africa were dancing to *Indépendance cha-cha*, the record he made when Zaire became independent.

■ *You never left the black music scene?*

— Of course I did. The nightclub where I was working belonged to a black man, but not all the entertainers were black. Whites from Europe and America, West Indians and Latin Americans all turned up at the *Anges Noirs* and met Africans there. I even played Gypsy music there. All this music, of course, was based on rhythm. In addition to the tango and the paso doble, people danced the samba, the cha-cha and the mambo.

We also played jazz for dancing. No one kind of music dominated our repertoire.

■ *How did you discover African music in the strict sense of the term?*

— My meeting with Kabasélé led to a series of lucky breaks. He liked the way I played the sax, and invited me to record Congolese music with him. The records we made together were a tremendous success. In 1961, the first piano recording I made—*African Jazz* had no pianist—had a wonderful reception in Zaire, which was the chief market for black music in Africa because of the powerful radio transmitter the Belgians had built there! Everybody in Africa listened to Radio Kinshasa, which broadcast until three o'clock in the morning.

While I was in Zaire, I started to compose. Then, in the mid-1960s, I returned to Cameroon. I saw my country with new eyes. The doors of Africa were slowly opening for me.

■ *How did it feel to be back in your native country?*

— I returned to Cameroon twelve years after I had left.... I really wanted to rejoin the society from which I had come. But I had lived in another society, with other rules. It's hard to go back to your country after being away for so long.

■ *Do you mean that after your long stay in the West you felt somewhat remote from the society into which you had been born?*

— Yes, I found an environment that was more restrictive for the individual than that which I knew in Europe. I was no longer very familiar with the rules of that society, but I was still strongly attached to it. A break is inevitable and normal for anyone who has a foot in two cultures. The important thing is not to lose your soul. And to be at one with yourself you need to know who you are.

■ *Was music a way of resolving these contradictions?*

— It was one way. It is the most spontaneous, natural form of contact between one person and another. It starts with the voice. The voice in itself is music. You make music as soon as you leave your mother's womb. People have always used sounds to soften or harden human feelings. Music is one of the essential factors of knowledge. Dialogue is first and foremost a form of music.

But once you have learned something you have to learn it over again. You have to go beyond the environment in which you have been shaped. That's the kind of curiosity researchers and creators have and I think you find it in all crafts and professions, not just music. Basically it's a universal problem.

It's also the problem of the universal.

■ *What do you mean by the universal?*

— That's a really difficult question. Universal in the singular or the plural? Is there plurality in universality? I don't know. For some, universality is an idea which has emerged from Western civilization alone. Let's say rather that if the people of the West didn't actually invent the idea, they knew better than anyone else how to sell it. It's their talent for marketing.... Others didn't use it in the same way, that's all.

Let's accept their formulation of universality as a working definition and ask a few questions. Can anything else be grafted on to it? It's like asking whether a law can be amended. Can the universal be amended? Or, if you prefer, the universal seems to me as an African an attractive garment but one that's a bit tight.

■ *You have been writing music since the 1960s. What public do you write for? For the whole world or rather for Africans?*
– Neither one nor the other. I try to reach the human being.

■ *A tension leading to the universal...*
– Perhaps because of the noble side of music. Because anyone can communicate with anyone else by means of musical vibrations. Since I like people who listen to me, I am ready to listen to people too. I am always ready to get to know other kinds of music. At least I have learned to learn. I am always guided by my curiosity.

■ *What has been the most important factor in your creative work?*
– This curiosity. My appetite for getting to know others. But what does it mean to say that one creates? I would be more inclined to say that one participates. Sound is a magma. You have to give it a form. It's never the same. But you always mould the same magma.

■ *So you've been doing that for thirty years?*
– What contribution have I made? I have built a bridge between my starting point and my curiosity. I contribute a sound which is unmistakably African. I add my difference.

■ *But in Africa doesn't your music sound somewhat foreign?*
– At first people in Africa said that I made Western music, that I was a black-white. I carried that label around for a long time. In France people often told me that I made American music. And when I went to the United States, the Americans thought that I made African music. It's impossible to be more of a traitor than that!

A gift has no race. There is a race of musicians and that's all there is to it. To belong to that race you need knowledge. The musician, even more than the composer, hears agreeable sounds around him and digests them. He likes them, they are part of him. The voices of Pavarotti and Barbara Hendricks have taught me to love opera. In my imaginary museum they join Louis Armstrong, Duke Ellington, and Charlie Parker. I haven't found anyone better. Mozart doesn't stop me from being African. I like mixtures.

■ *In a sense you span several continents.*
–When you're a musician you don't say to yourself when you get up in the morning "I make African music", you say "I want to make music". And that's that.

DISCOGRAPHY

O Bosso and **Soul Makossa** (1972). **Super Kumba** (1974). **Africadelic** (1975). Film music (1976): *L'herbe sauvage* (Côte d'Ivoire), *Ceddo* (Senegal), *Le prix de la liberté* (Cameroon). **Gone Clear** (1979). **Ambassador** (1981). **Waka Juju** (1982, distr. Sonodisc). **Soft and Sweet** and **Mélodies africaines, vols. 1 & 2** (1983). **Abele Dance** and **Surtension** (1984, distr. RCA). **Tam Tam pour l'Ethiopie** (1985). **Electric Africa** (with Herbie Hancock and Wally Badarou, 1985). **Afrijazzy** (1986, Soul Paris/distr. Mélodie). Double live album recorded at Francofolies (1988, BUDA/distr. Mélodie). **Polysonik** (1990, Bird Productions, distr. BMG).

Above, Manu Dibango with the French musician and composer Michel Portal. Left, with the American trumpeter Don Cherry.

■ *Isn't choosing instruments a problem?*
– It's the same for all musicians! When you've learned to play an instrument you become a good, average or excellent instrumentalist. The important thing is to have a sound that sticks in people's minds. Why are Stan Getz, Armstrong or Manu so immediately recognizable? Each has a sound that gets across.

■ *But if you introduce into a given musical culture instruments which are alien to it—the piano or saxophone into Arab music for example—do you not destroy something in that music?*
– Yes, of course. But you never get ahead without breaking something. When Arab instruments were invented there was, of course, a code. But is that code immutable or can it change? Can you add instruments to a music which existed without them? It's for the musicians to answer that question first. It's the instrumentalist who will say: "Hey, this instrument does nothing for me." Or else, "That one gives me something that I'm going to adapt to the music I play."

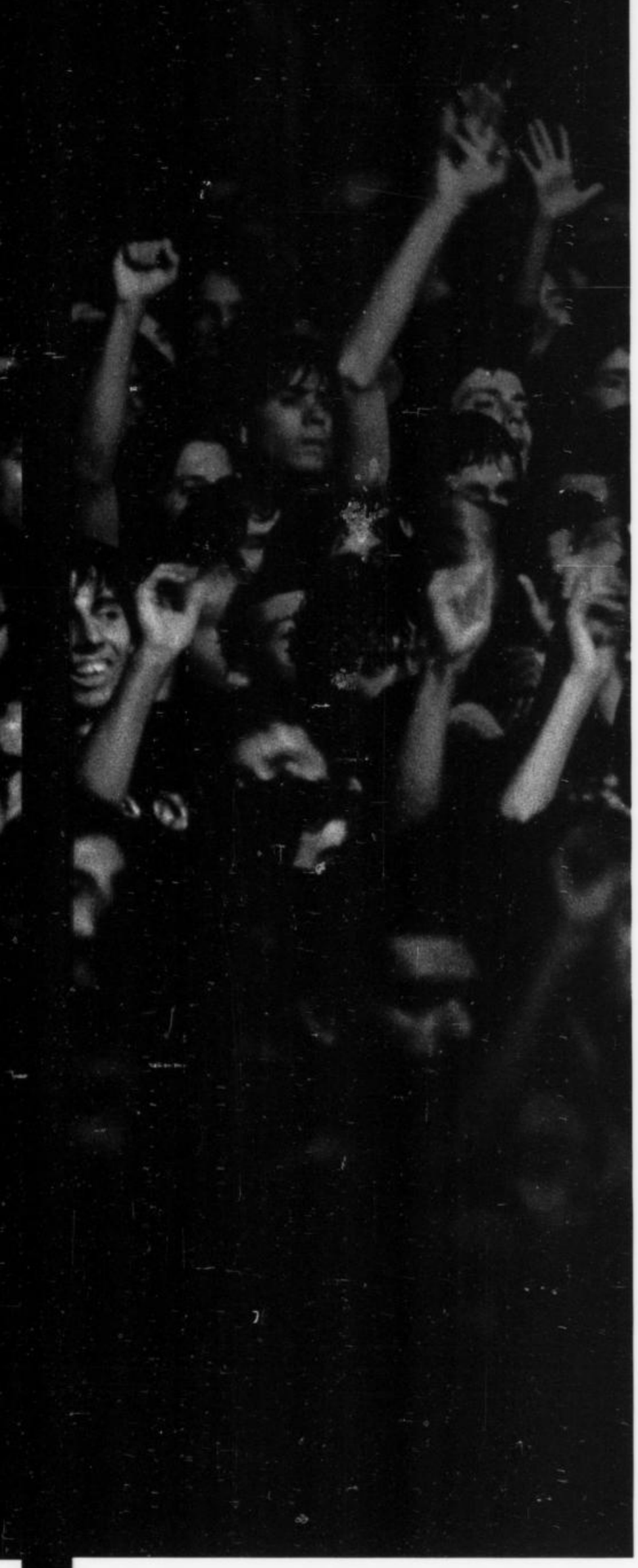
■ *How do you get the best out of a new instrument?*
– Let me give you an example. There is a traditional African instrument that I adore. It's a kind of zanza with wooden tongues. I wanted to include it in my own idiom, but it can only be played in a certain tonality. What could I do? In the piece that I composed, I prepare for it to come in by a modulation. Then I play for a while with the zanza, in its own specific style and mode. The next problem is to phase out the zanza and bring in something else.

And so I decided to include the instrument without altering its nature. But you might also want to modify its sound: "Hey, the zanza sounds good, but if I add a bit of cotton here or a matchstick, won't I get a quarter tone more?" It's a personal choice.

■ *You don't see it in terms of cultural references?*
– The references ought to come naturally. In music there is neither past nor future, only the present. I must compose the music of my time, not yesterday's music. I have always been accused of "pinching". How can you create if you don't take from that which gives the age its substance? All creators have something of the vampire in them: painting, literature, and journalism function like music.

Some musicians are afraid of reaching that universal. But without that perspective what are we here for? What's the point of curiosity, energy, movement, if we live for seventy years tucked away in a corner, bound hand and foot? ■

A world of music



Rock festival in Rio de Janeiro.

by Isabelle Leymarie

CIVILIZATIONS have always influenced and enriched one another culturally through borrowing, osmosis and acculturation. With the development of intercontinental communications networks and the audiovisual media, the speed at which these processes take place is accelerating at a tremendous rate. Music, a source of enjoyment which transcends linguistic barriers, is one of the more positive aspects of these exchanges.

As early as the eighth century, one of the farthest-reaching currents of musical cross-fertilization was making its way around the globe. Indian music travelled to Central Asia, Iran and Afghanistan, and also to the Middle East, where it influenced Arab music. Arab music in turn spread throughout North Africa to Spain, where it gave rise to flamenco, then after the expulsion of the Arabs from the Iberian peninsula, back down to North Africa, where "Andalusian" music was born.

Nevertheless, until colonial expansion and the slave trade turned the world music order upside down, musical traditions remained fairly localized, centred on a village, a tribal group, or a region, and varying from place to place in much the same way as regional dialects, dress or cooking.

Music has had clearly defined social and ritual functions since very early times. In some cultures it remained the exclusive domain of certain individuals or groups. Among the Wolof and Malinke peoples of West Africa, the griots were the sole repositories of music, of genealogies, and of the oral tradition, which they transmitted from generation to generation. Griots were even obliged to marry within their own group.

Many young griots today, however, perform in modern settings and use such instruments as saxophones and electric guitars. In Senegal this mixture of traditional rhythms and pop music has resulted in a new musical style called *mbalax*.

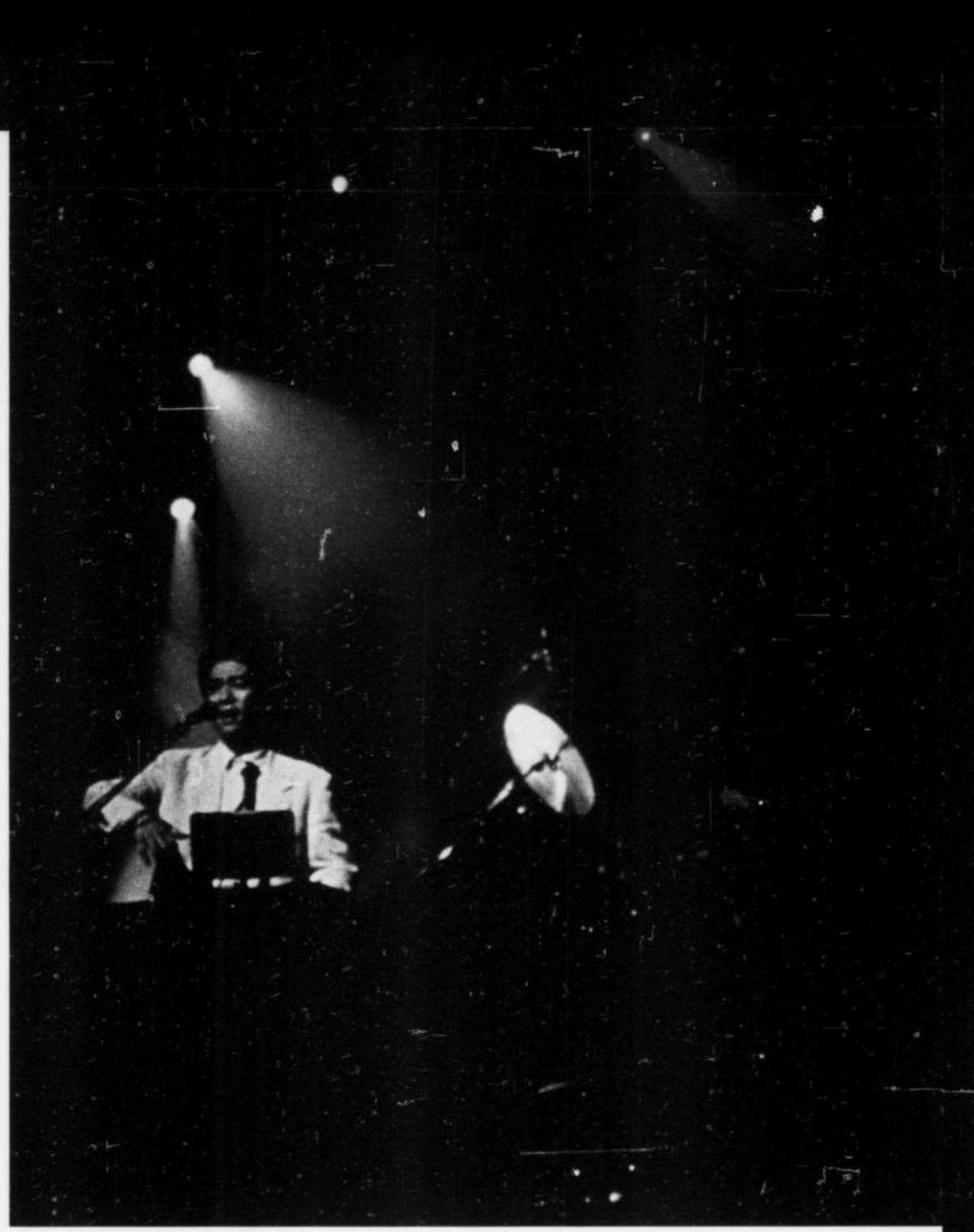
In Japan some musical instruments are still associated exclusively with specific professions. They include the geisha's *shamisen* and the *biwa*, which is played only by blind bards. At the same time, the Japanese are great consumers of Western music, and in particular of French popular songs.

When, at the beginning of the sixteenth

century, the Portuguese and other European colonists established themselves in Africa and began exporting thousands of black slaves to the Americas, an entirely new genre, "creole" music, was born. Portuguese-influenced music from Cape Verde, Mozambique and Angola, and then Afro-Cuban, Afro-Brazilian, Caribbean and Afro-American music developed. Instruments of African origin such as bongos, congas, timbals, claves (rhythmsticks) and maracas, began to be used, notably in Cuba, and new musical forms such as son, son montuno, bolero, guaracha and rumba gradually emerged.

From tango to rock

In the 1920s, jazz, which had emerged as a hybrid of Afro-American and European music and had become associated with Art Nouveau and Modernism, blew a wind of freedom over America and Europe. It imposed its black aesthetic on white culture and became one of the most important forms of popular music of the twentieth century. It influenced and inspired composers such as Gershwin and Debussy, and painters such as Matisse and Mondrian. In the same way, the tango, a blend of Bantu rhythms and Argentine expressionism, then the rumba in the 1930s, mambo in the 1940s, cha-cha-cha and rock 'n' roll



The Indian-born musician Najma plays a traditional portable organ at a concert in Paris (1990).

in the 1950s, all Afro-American creations, gained world-wide popularity.

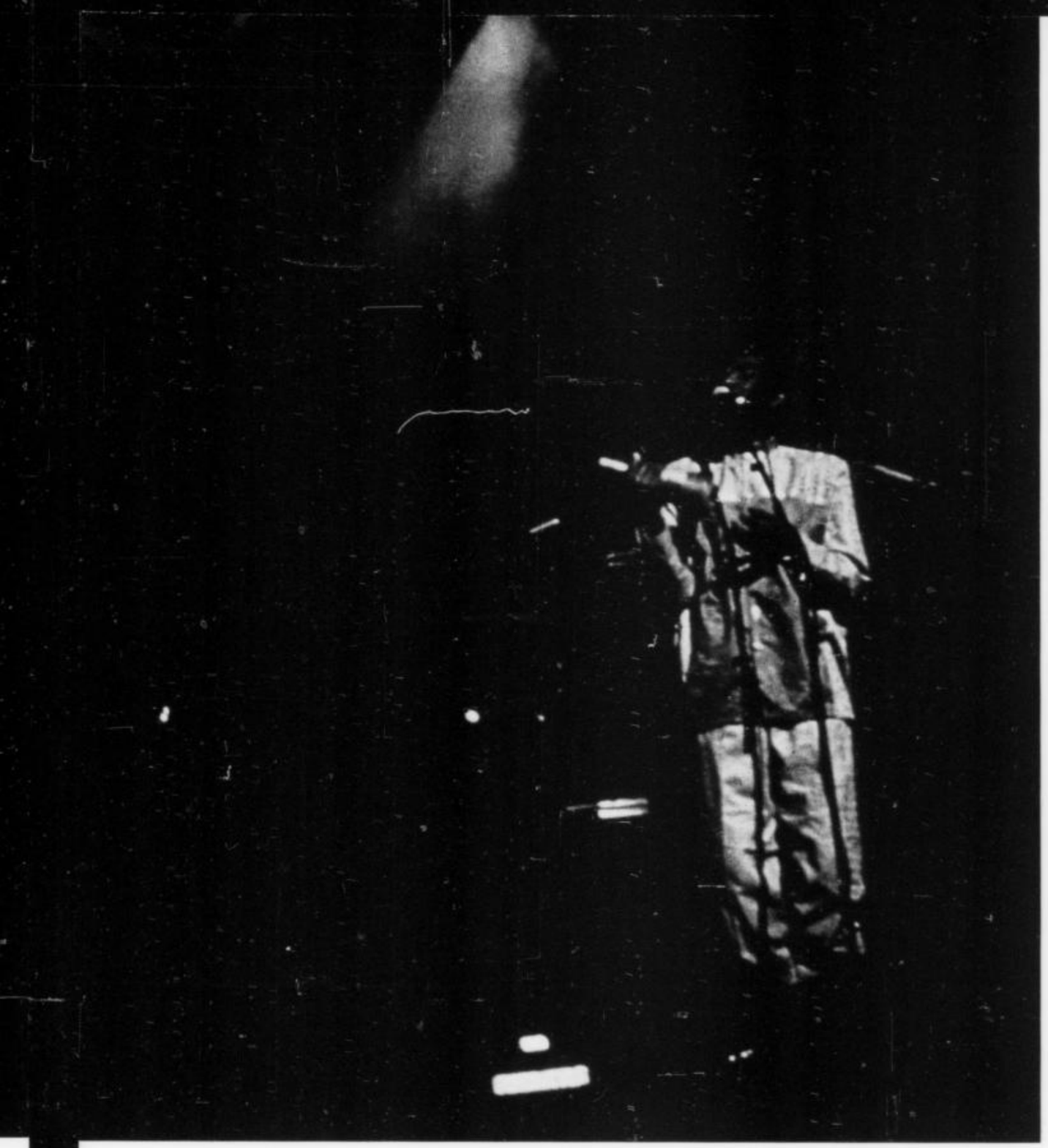
Black music is still the common denominator (though not the only one) of most popular music today. Funk, disco, soul, rap, rock, reggae, samba, bossa nova, soca, Afro-beat, juju, highlife and zouk all have African roots to some extent. In France, Georges Moustaki, Claude Nougaro and Bernard Lavilliers are enthusiastically exploring Afro-Brazilian rhythms, and Nana Mouskouri is branching out into gospel singing. In the United States, Paul Simon has made a recent album with Cameroonian and Brazilian musicians, and in Japan Ryuiji Sakamoto has called on the Senegalese singer Youssou N'Dour to bring a little warmth to his rather precise instrumentation.

After the Second World War, the LP record and television contributed to the spread of pop music, which American musicologist Peter Manuel has described as the most significant event in twentieth-century music: "Socio-economic and technological development brought a bewildering array of new styles, instruments and expressions into being, and pop music reached a much larger audience than any other art form ever has."

Rock music, created by Afro-American musicians like Chuck Berry and Bo Diddley and taken up by Elvis Presley and other white singers, became a symbol of revolt and protest for youth the world over. It disrupted the American conformism of the 1950s, inspiring a new style of dressing—jeans, T-shirt and leather jacket—and revolutionizing standards of behaviour.

New forms of musical syncretism appeared in the 1960s with the hippy-era craze for Asian, and particularly Indian, music. Miles Davis and John Coltrane introduced the use of Eastern-inspired modes in jazz, and the Beatles brought the Indian sitar to pop music. But this infatuation with exoticism made little impact on highly structured musical forms which already possessed a strong identity, just as attempts to mix jazz and classical music have always failed.

During the next decade the record industry contributed to the trend for musical blending. The term "fusion" was coined to describe certain types of hybrid music which were created artificially, often from a basis in jazz, using



synthesizers to produce a uniform sound which was culturally neutral and could reach very large audiences. The Crusaders (who, significantly, changed their name from The Jazz Crusaders) and the saxophonist Stanley Turrentine are representative of this trend. Most jazzmen agreed, however, that this "fusion" was really only "confusion", a juxtaposition of distinct musical styles which lost all their originality in the mixing process.

Musicians who find inspiration in other cultures

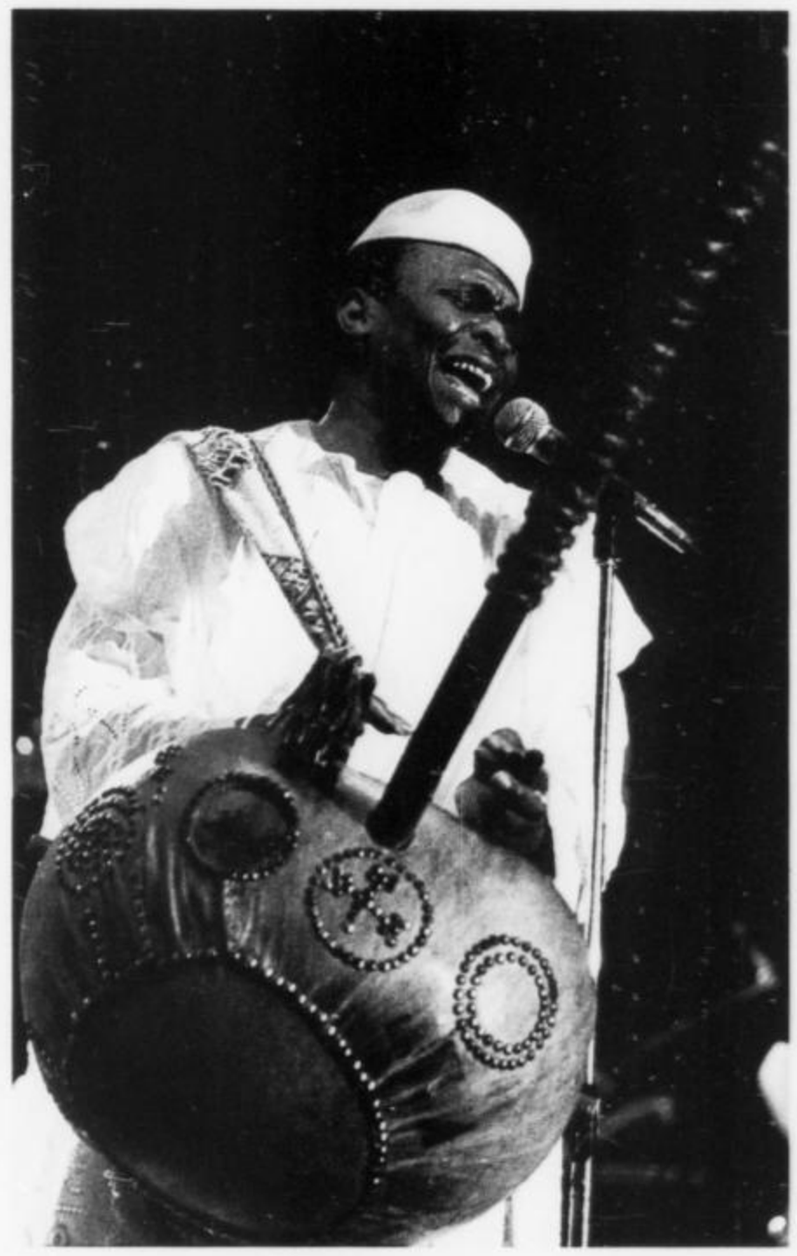
Frontiers also opened in the once compartmentalized world of classical music, where an exciting process of exchange between East, West and Africa began. Steve Reich has used Ghanaian drumming rhythms in his compositions, Philip Glass has written music inspired by Pygmy polyphony and several Asian composers produce music that combines both Asian and Western elements.

Several historical and social factors are responsible for the present intensification of musical blending: urbanization, decolonization and immigration all contribute to population movements and cultural mixtures. In the world's great cities composite ethnic groups have developed such as the Hispanics in New York, the Jamaicans in London, the Californian, Texan and New Mexican Chicanos and the Africans and second-generation Arab immigrants in Paris. All these groups are exposed to the multiple musical influences of their environment and are searching for their own modes of expression.

The present trend towards "world music" may well entail a certain amount of cultural imperialism, but more significantly it is indicative of a genuine human desire to open up culturally and go beyond political ideologies and national borders. It is also somewhat counterbalanced by a worldwide renewal of regional popular music and the increasing interest of Western musicologists in non-Western music. This is particularly evident in the numerous "multicultural" music festivals that take place every year at Lille, Angoulême and La Rochelle in France, in the seminars organized by the New School in New York, in the enthusiasm of Japanese teenagers for African and Latin rhythms and in the ever-growing number of mixed-repertoire groups (such as Xalam and Ultramarine in Paris) whose members are themselves of different ethnic backgrounds.

Young people in towns and cities, torn between conflicting values, often find an emotional outlet in rock, jazz, rap or pop music that makes them feel that they belong to a larger international community, that they have a global identity where tensions subside and conflicts are resolved.

Is there reason to hope that the increasingly close contact between the world's different forms of music, reflecting a deeply-felt need for communication and mutual understanding, will lead to greater humanism and a general enrichment whereby different cultures, in opening up to one another, will strengthen their own originality? ■



Above, the Senegalese singer Youssou N'Dour and Ryuiji Sakamoto of Japan.
Right, the Malinke griot Mory Kante (1986).

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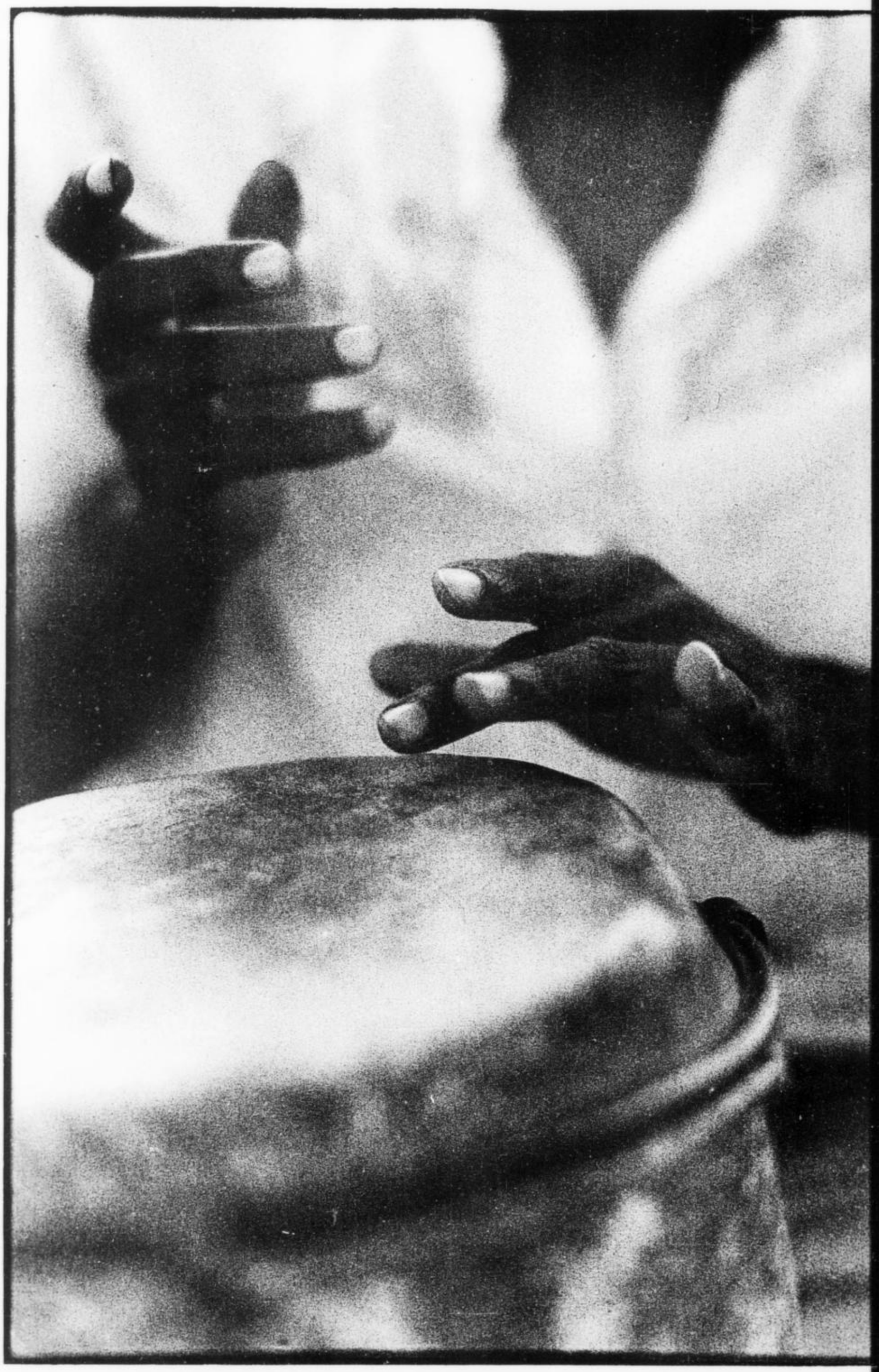
French ethnomusicologist, is a journalist, educator and producer of music programmes for radio and television, notably in France and the United States. Since January 1989 she has been responsible for programming jazz at the Châtelet Theatre and Auditorium, Paris. She has published many articles on jazz and Latin American rhythms in specialist periodicals.

The birth of the blues

How far have African musical traditions survived in rock, jazz and blues, whose origins can be traced back to the slave trade?



by Etienne Bours and Alberto Nogueira

Late 19th-century American poster advertising a black and white minstrel show.

In 1954, Elvis Presley recorded his first single. On one side was his version of "That's All Right Mama" by Big Boy Crudup, a black man, a blues singer and the father of rock 'n' roll, and on the other was "Blue Moon of Kentucky" by the white father of bluegrass country music, Bill Monroe. This was a key moment when black music was transmuted by alchemy into white, and white music into black. Presley turned up in the right place at the right time. All he had to do was pick the ripe fruit from the many branches of trees whose roots had for centuries been drawing sustenance from far away.

Many kinds of music which have since become part of our culture—rock, blues, jazz, soul, rhythm and blues, and spirituals; reggae, calypso and merengue from the Caribbean; samba and capoeira from Brazil—would never have existed if it had not been for the infamous trade in "ebony wood". Today musicians who seek their roots as well as new sources of inspiration are creating exciting forms of hybrid music.

From Africa to the Americas

How long did Africa remain part of the musical heritage the slaves took with them to the Americas? Does it still provide inspiration for the music we know today? Many writers have gone back to Africa to try to answer these questions. They have tried to discover the origins of the blues and of jazz, revealing the incredible distance that has been covered, always emphasizing the possible links—and the inevitable breaks—between African traditions and Afro-American music. On both sides of the Atlantic, music has developed different idioms. "Any similarity to what is heard in the African countries has disappeared," wrote the Cuban writer Alejo Carpentier in 1977.[1]

These new forms of music were created and developed by black people, but cross-fertilization had diluted African memories to varying degrees, depending on where the black communities were established and the social conditions that existed there.

"We might be called a people of dancers, musicians and poets, since important events such as a triumphant return from war or any other reason for popular rejoicing, are celebrated by dancing accompanied by appropriate music and singing," wrote Olaudah Equiano, an Ibo slave taken to Virginia in 1756.[2] These celebrations were not always tolerated. As a rule, the black slaves in Latin America lived in relatively closed communities and were able to preserve some tribal customs as well as their traditional rites and ceremonies. Catholicism allowed a certain latitude towards African religious practices in a context that was often syncretistic. As a result, ritual music survived in such countries as Brazil, Haiti and Cuba, where many cults of African origin are still practised.

In contrast, the slaves who were transported to the United States via the Caribbean, where some features of their African culture were modified or obliterated, had to live in fairly close contact with their white owners. All their ancestral beliefs and means of self-expression were affected from the start. In the despair of captivity they clung to their cults, but practised them in secret. Some of these cults survived, surreptitiously mingling with white Protestantism and receiving a new lease of life through contact with the waves of black slaves imported from Haiti, Martinique and Guadeloupe. Although certain beliefs were expressed through a veil of symbolism, or through the fervent singing of spirituals, other African gods were worshipped in the open air, in the depths of the Mississippi bayous—as in the case of the Vaudou cult, known as Hoodoo in the southern United States.

Secular music, on the other hand, was forced to comply with new functions in a new environment that was hostile to African traditions. All that survived were songs and dances that were compatible with the economic and social structure of the New World, such as the work songs ("field hollers"), born of African call and response chants, which allowed the slaves to pace their work and keep the overseer's whip at bay.

'Any Westerner who dances is unwittingly paying tribute to the genius of Africa'

Abdelwahab Bouḥdiba, *Pluralisme social et pluralisme culturel*, Louvain, 1970.

1. "The Blacks in Latin America: Africa's imprint on the art and life of another continent", the *UNESCO Courier*, August-September 1977.
2. Paul Oliver, *Savannah Syncopators/African Retentions in the Blues*, Studio Vista, London, 1970. See also the April 1987 edition of the *UNESCO Courier*, "Travellers' Tales". *Editor*

Above, a Brazilian musician playing the berimbau, an instrument used in *candomblé* music, which is very popular in Bahia state.
Above left, the American trumpeter, singer and bandleader Louis Armstrong in 1958.
Top, the American jazz singer Ella Fitzgerald.

The slaves could also use their talents to entertain their masters. Many of them played the fiddle, fife or drums. More than one escaped slave sought by his owner was described as an excellent singer or a skilled fiddle-player. They fashioned their instruments out of whatever materials were available, notably inventing various forms of lute that developed into the banjo. This instrument, which became virtually synonymous with black music, took pride of place in the minstrel shows which began to be produced in the early nineteenth century. These entertainments, in which the music was provided by white men with blackened faces, were parodies of the life and culture of the blacks. Strangely enough black musicians eventually played their own versions of some of the songs, and even appeared in the shows in their own right.

Musicians who refuse to compromise with the market

The contact between English and Irish ballads and dances, European instruments, work songs, the cries of slave and master, spirituals and gospel songs, gave rise to the blues—black music in essence, but already black American. The blues, which came from the deep South, are crucial to the history of the great intermixture of cultures in North America. After the birth of the blues, black music began to be recorded, along with what could be described as the products of the second wave of cultural fusion. In the early recordings, the art of the rural blues singers appeared in its raw and authentic state. It would never be heard in quite the same way again.

In 1900 eight out of ten black people still lived in the countryside. By 1930, half of them were living in industrial towns and cities. This exodus from the countryside gave birth to other forms of musical expression such as urban blues, rhythm and blues, and soul music. New commercial imperatives also emerged. Black music was gradually being subjected to the laws of the market. Did these developments lead to authentic or spurious forms of cultural fusion? This was, in fact, the last stage in a long journey, during which the music had grown further and further away from its original functions, and perhaps had become so thoroughly blended that it managed to please everybody.

At the same time, many musicians refused to compromise their art for the market. To realize this, one need only listen to Joseph Spence, a remarkable guitarist from the Bahamas whose music resists commercial exploitation and the constraints of the recording studio. His work is an authentic cultural blend, a mixture of different traditions which have gradually become entangled and most of whose musical expressions have been tinted black. ■

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Brazil: a kaleidoscope of sound

by Mario de Aratanha

A country the size of a continent, where racial and cultural intermixture has given birth to rich and original forms of music

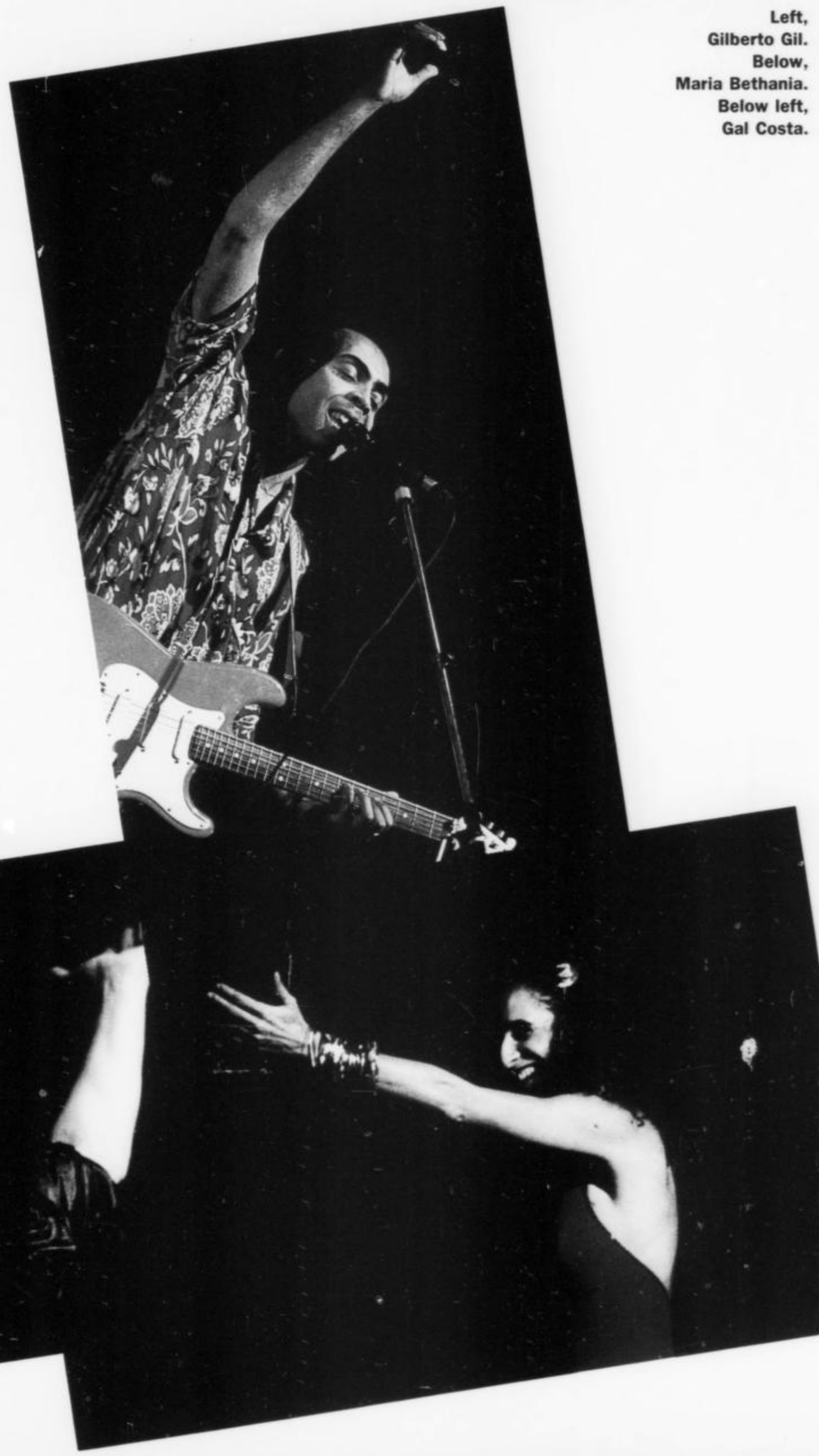
THE mixing of races and cultures in Brazilian music reflects the history of this continent-sized nation, where the Portuguese arrived in 1500 and the Africans half a century later; where white people married Indians, Indians married Africans, and Africans married whites. This racial mixing has produced one of the richest and most original of the planet's musical heritages.

Exporting its styles and stars worldwide, Brazilian music reflects a multi-faceted cultural framework that currently includes at least half a dozen fundamentally different traditions. Brazil itself provides a huge market for recorded music. About 80 million discs are sold there each year, almost 70 per cent of which are of the country's own music—this in spite of the almost total control of distribution by big, foreign-owned multinationals.

Combing the country from north to south, musicologists have already identified 365 different basic rhythms in Brazilian music. The Jesuits started putting together this musical kaleidoscope when they incorporated Indian dances into their ceremonies. The mix was later enriched by the African cultures that came over on the slave ships. It was then refined with the arrival of the Portuguese court in Brazil in 1808; spread by the coffee boom of the mid-nineteenth century; professionalized by the coming of the radio; and carried across the seas by the cinema, record and video industries.

The process is still continuing, and in so doing is becoming more technologically and culturally aware. On the one hand, computers have invaded the recording studios, the "electric trios" of Salvador de Bahia use special effects worthy of a Spielberg movie, and the urban young dance to the sounds of Brazilian rock. But on the other, Rio's *pagodes* and the *afoxés* of Bahia are consciously returning to their African roots.

At the same time, a cultural interchange is under way. While the lambada is fashionable with European dancers, the young blacks of Bahia do the samba-reggae. Tom Jobim has moved to New



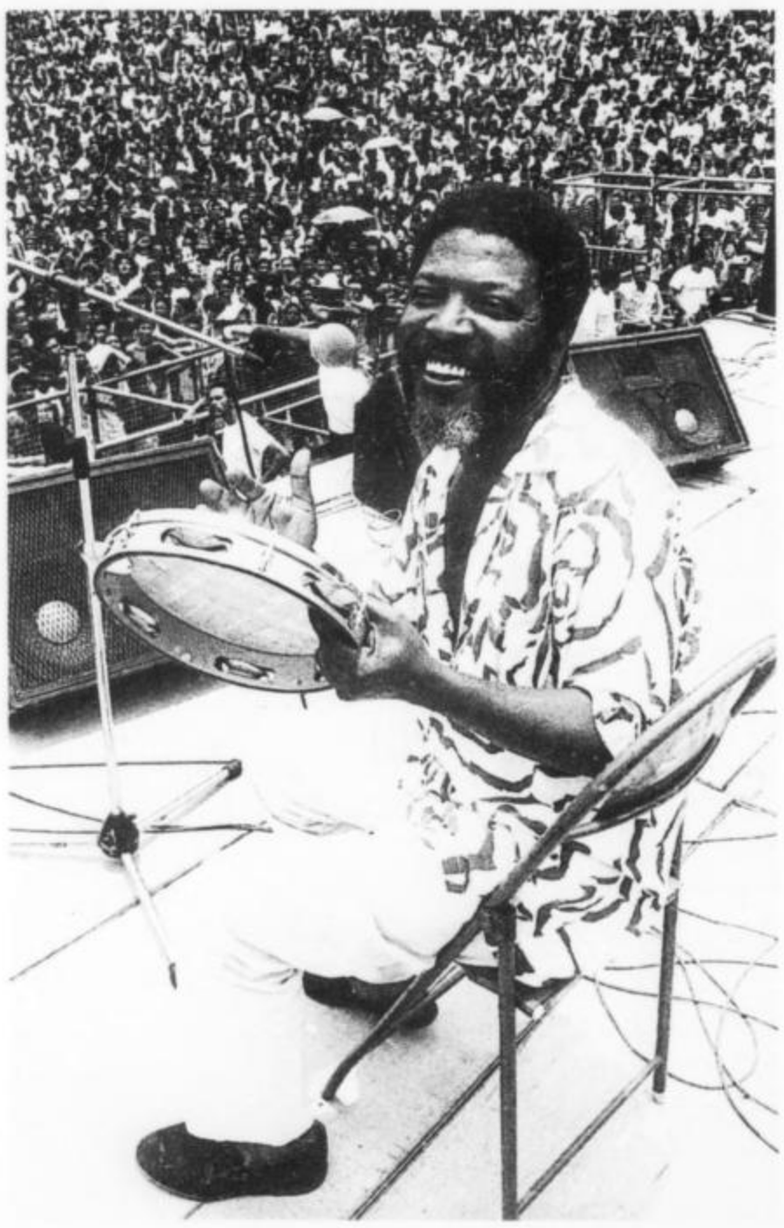
Left, Gilberto Gil. Below, Maria Bethania. Below left, Gal Costa.

York, and Gilberto Gil and Milton Nascimento continue to conquer foreign markets. Media superstars like David Byrne and Paul Simon record with Brazilian musicians, following in a tradition of cross-fertilization that earlier included Hollywood's discovery of Carmen Miranda, Walt Disney's Pepe Carioca cartoons, and Fred Astaire and Ginger Rogers flying down to Rio to dance the maxixe.

Indians and whites

Brazil's first cultural marriage was that of the white settlers with the indigenous population. The Jesuits introduced into their ceremonies the *catarete,* a dance of the Tupi Indians, who were the first to compose Brazilian songs in Portuguese. The limited penetration of black music into the Northeast hinterland has helped the ancient blending of local wind instruments with Arab strings, as imported by the Portuguese, to survive there. In this arid region, you can still see characters recalling the troubadours and minstrels of medieval Europe, guitarists and poets of the people who travel from fair to fair singing songs drawn from history, present-day reality, or the dream world. In their improvised solos and duets, Indian and Iberian sounds blend.

Closer to the coast, the music becomes more rhythmic, percussive and African. In the urban zone around Recife and in the neighbouring Pernambuco sugar-cane district, the massive black presence makes itself felt musically in the *maracatú,* the dance of the carnival parades. This music of the Northeast coast, stretching from Bahia to Recife and on up to Maranhão, is of all Brazil's styles the one that best balances Indian, white and black elements in its traditions. A similar sort of popular aesthetic also makes its presence felt further north, as far as the Amazon estuary, where Caribbean echoes can be heard.



The rural areas of the states of São Paulo and Paraná are now among the wealthiest parts of Latin America. Helped by this prosperity, the *dupla caipira*—a popular, country-style music reflecting the songs of Paraguay's Guaraní Indians—has become one of the most saleable musical commodities in the country, particularly since its influence reached the city of São Paulo, an industrial megalopolis with 10 million inhabitants.

Farther south, on the vast pampas grazing-lands, new musical horizons come into view: those of the Rio de la Plata, whose native music shows the influence of the *milongas, rancheras* and *chamamés* of Argentina and of Uruguay.

Rio, cultural capital

The two richest musical regions of Brazil are those surrounding Bahia, in which the black influence predominates, and around Rio de Janeiro, Brazil's cultural capital, where most of the nation's styles meet. All the different regional currents, whether from Africa, Bahia, the Northeast or anywhere else, come together in Rio. Brazilian radio got under way there; and it is in Rio that television is at its most creative, that most of the recording studios and music businesses are based, and that the labour market is most welcoming. As a result, Rio draws musicians from all corners of the nation.

Since the end of the last century, Rio has been an ethnic melting pot. Nonetheless, it has its own musical traditions, the samba and the *choro,*[1] which began to develop after the abolition of slavery in 1888. But even earlier, from the time of the arrival of the Portuguese royal family eighty years before, African *lundus* were already combining with European songs. On the whole, however, black music was confined to the slave quarters, while the élite danced first the gavotte and the minuet, and later the polka and the waltz.

After their emancipation, former slaves who had a profession set themselves up in the *Cidade Nova,* near the centre of the city. The rest ended up in the least favoured districts, beside the railway lines and on the heights of the *morros.* The different economic and cultural levels of the two groups were reflected in the development of two distinct musical traditions. On the one hand there was the sophisticated sound of the maxixe and the choro; on the other the samba of the hill-shanties, more percussive and well-suited to street parades at carnival time. From this tradition the samba schools were to develop. It was around this time, at the turn of the century, that Rio had its first professional musicians, in the sense in which we use the term today.

The first foreign influences on Brazilian music came in by way of the cinema in the 1930s.

Left, samba musician Martinho da Vila in 1985. Above, a scene at the Bahia carnival.

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But it was in the following decade, the time of President Roosevelt's "good neighbours" policy, that the cultural interchange between Brazil and the United States really gathered momentum. Carmen Miranda left for Hollywood, and American music flooded onto the Brazilian market.

Good neighbours

The 1940s and 1950s were the years of dance music *par excellence,* and Brazil's traditional rhythms competed with Caribbean boleros and American blues and foxtrots. It was the start of the consumer era that has continued to the present day. The top stars drew their inspiration from the romantic songs popularized by cinema and the record industry. The fashion was for things foreign; inspired by cool jazz and by bebop, Rio's music was getting ready for the bossa nova.[2]

When João Gilberto arrived in Rio from Bahia with the *batida,* his own particular guitar rhythm, he found the ground ripe for the bossa nova, which conquered first Brazil and then the United States. The 1960s therefore reversed the tendency to cultural importation that marked the previous decade and saw the beginning of a new cross-fertilization, one that was not simply ethnic but cultural. Aided by radio, the record industry, show business and television, the Rio music business took off. Elis Regina, Caetano Veloso, Gilberto Gil, Gal Costa, Maria Bethania, Milton Nascimento, Chico Buarque, Tom Jobim: around the big names different musical trends coalesced, all linked under the general label of Brazilian pop. These urban sounds remain among the most important musical influences in the nation to this day.

This was the era of the great pop festivals, with Beatlemania serving as a backdrop. But the rock guitar of Brazilian pop soon gave way to Tropicalism, a *cri de coeur* for moral and aesthetic liberty launched by Caetano Veloso and Gilberto Gil. Political dissent invaded the realm of music, growing into full-blooded revolt against the military dictatorship set up in 1964. Under the new rulers, harsh artistic censorship joined up with police violence to silence a generation.

Yet the movement was strong enough to

survive censorship by seeking refuge in exile—or in metaphor. Poetry slipped in between the lines of the texts the censors scanned. Nevertheless, the general tendency of the 1970s was towards a less political music. The samba returned to popularity with Paulinho da Viola, Beth Carvalho and Martinho da Vila.

Eclectic and electric

The devastating effects of twenty years of military dictatorship hit the intelligentsia of Brazil's cultural capital hard. The great names of the 1960s survived, but successors were hard to find. In the 1980s the greatest opportunities were for the most commercial kind of rock music, whose artistic triumph was assured by media coverage. Rita Lee became a superstar, Alceu Valença created his own hybrid, *forrock*,[3] funk invaded the black suburbs of the big cities, and all-Brazilian rock groups made their appearance: Paralamas do Sucesso, Cazuza and the Barão Vermelho, Ultraje a Rigor, Titãs and Legião Urbana.

Yet in reaction to the growing homogenization of the FM radio hits, a new trend in favour of cultural conservation and a return to roots also developed. Over the past few years, black music has found new life in the *pagodes*, gatherings of samba musicians in suburban Rio backyards that have produced such names as Zeca Pagodinho, Almir Guineto, Fundo de Quintal and Jovelina Pérola Negra.

The return to sources is most pronounced, though, in Bahia, where so much of Brazilian music has had its origins. Bahia has been the home of black culture ever since the arrival of the first Bantu slaves; and even though its racial background and customs are not dissimilar to Rio's, its atmosphere remains more authentic—as does its music, which retains close ties to the religious cults originating in Angola, Nigeria, Senegal or Guinea-Bissau. Preserved for centuries in the rites of the *candomblé*, it finally freed itself from them at the end of the last century, winning popularity early in the present one.

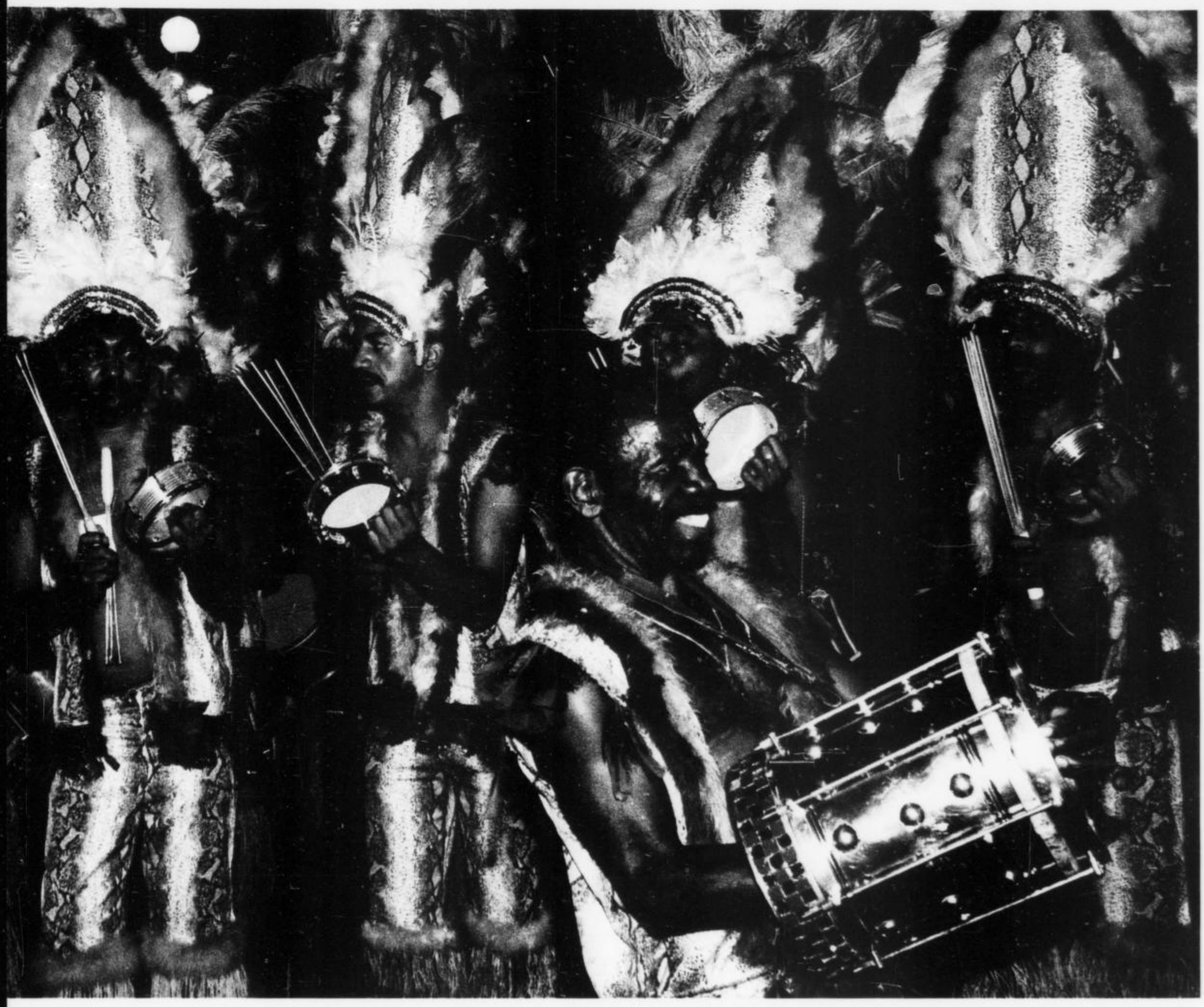
In the 1930s, the first Bahia carnivals were dominated by the *afoxés*, groups of musicians with a religious bent that paraded in the streets like the samba schools of Rio, but to a slow, almost funereal beat known as the *ijexa*. The tradition was broken in the following decade by two revolutionaries, Dodo (who was black) and Osmar (who was white). They joined to form the Trio Elétrico, the group that was to alter completely the nature of the Bahia carnival. They made their debut on an old Ford truck with an amplified guitar and *cavaquinho* (a small, four-stringed instrument). Six or seven percussionists paraded behind them on foot. The new style soon caught on, and the size of the bands playing it grew, along with the volume of sound they produced and the musical influences they exerted.

In their treatment of radio hits, Rio march tunes and *frevos*[4] from Recife, the three or four "electric trios" of the early days soon adopted a fast beat. Whenever one of them crossed the path of an *afoxé* band, it tended to throw the slower ensemble out of time, to such an extent that the *afoxé* musicians in their turn had, in self defence, to speed up the tempo. This competitive spirit gave a hallucinatory quality to the Bahia carnival that was one of the elements in its success: starting out as a four-day event, it was soon running not far short of three months. And the three or four trios of the 1940s grew to number eighty or more.

The trios vastly improved their equipment in the 1970s. Mounted on lorries fitted with loudspeakers, they could make themselves heard over much greater distances, drawing ever-bigger crowds. Gradually these motorized stages became more imposing even than Rio's allegorical carnival floats. The trio called Coca-Cola, for example, advertised their presence with a gigantic mobile bottle, while Caetanave travelled in a spaceship complete with special effects. Some of the lorries were even equipped with lifts.

Amplification, the use of electronic instruments and the influence of urban rhythms linked

Folk engravings from Northeast Brazil and the cover of a compact disc featuring the *Trio Elétrico Dodo & Osmar*.



A samba school.

to rock have modernized the music of the trios, which has now moved onto the radio and records thanks to Osmar's son, Armandinho, and especially to the Novos Bahianos, successors to the Tropicalism of Gilberto Gil and Caetano Veloso. Bahian music is coming to terms with modern technology; in future its customary vitality will take different forms, some traditional, others progressive.

Effervescent Bahia

In the competitive atmosphere of the 1980s, when Brazilian pop vied for audiences with rock and with romantic ballads, it was Bahia that walked away with the prizes. Luis Caldas came on the scene, as did the lambada, which originated in the Caribbean but was soon integrated into Bahia swing. One of the characteristics of the city's musical tradition is that wherever it takes its influences from, be it California, Rio de Janeiro, Jamaica or Dahomey, they quickly become Bahian.

Practically all the city's music-making centres on the annual carnival. Even new, professional bands like Chiclete com Banana, Mel, Reflexus and Cheiro de Amor retain links with the politically-aware street bands in the *afoxé* tradition, including Olodum, Ara-Ketu, the Filhos de Gandhi and many others, among them the same groups that speeded up the *ijexa* beat to protect themselves from the "electric trios".

The musicians work all the year round, flooding the now self-sufficient Bahia market with their records. The crowds live their music in an atmosphere of effervescence. The influence of Jamaica, and the political force of the Rastafarian movement are strong; they have combined to make a demi-god of Bob Marley, and the samba-reggae has become a classic example of cultural cross-fertilization.

The aesthetic of the back-to-Africa movement does not follow any established model. At the last carnival, for instance, Ara-Ketu featured wind instruments, guitars and synthesizers alongside traditional African drums; while the authenticity of Olodum's traditional drumming caught the ear of Paul Simon. In the Africanization process, new and old, local and foreign, come together; and the people, who only want to dance, love it all. ■

1. The *choro*—literally, "lament"—is a mixture of European styles, notably the schottische, waltz, tango, polka and *habanera*.
2. Bossa nova means "new wave" in Portuguese.
3. A contraction of *forró* —a dance originating in the Northeast—and rock.
4. The *frevo* is a dance with Iberian and Brazilian roots and a frenzied rhythm. *Editor*

Tex-Mex music

by Manuel Peña

The music of Texas-Mexicans expresses the tensions of a community that remains deeply attached to its cultural roots while aspiring to be part of American society

THE American southwest—the states of Texas, New Mexico, Arizona and California—was once a part of Mexico. And, despite the lapse of almost 150 years since the United States annexed the territory, the Mexican-Americans of the southwest still maintain a staunch allegiance to Mexican culture, notably where music is concerned. This is particularly marked among the people of New Mexico, while the Mexican-Americans of Los Angeles lay claim to a more recent but vigorous musical tradition. Yet among Americans of Mexican descent, only in Texas do we find such deep and robust folk traditions as those embodied in *música tejana,* or "Tex-Mex" music. In fact, the Texas-Mexicans have developed two distinctive musical traditions, each with its preferred instruments and style, whose influence extends far beyond the Texas borders: the *conjunto* (also known as *música norteña)* and the *orquesta tejana,* or simply *orquesta.*

Although only the conjunto is truly indigenous to the Texas-Mexicans, both forms of music possess vigorous and original features. And if popular success can be taken as a criterion of quality, then the wide diffusion of both the conjunto and the orquesta throughout the American southwest and beyond testifies to the musical genius of the Texas-Mexicans.

Why have the Texas musicians been the leading innovators among Mexican-Americans of the southwest, and what are the factors that contribute to the cultural significance enjoyed by the "Tex-Mex" tradition? The answer lies in the nature of the contact between Anglo-Americans (Anglos) and Mexican-Americans. In short, the cultural and innovative vigour of the conjunto and the orquesta derives from the special role each has fulfilled in defining and mediating the intercultural conflict that has existed between these two communities in Texas.

There is no doubt that the Texas-Mexicans bore the brunt of the Anglos' arrival, but they did not yield easily to Anglo domination. In the ensuing climate of intercultural resistance and animosity, forms of expression that defined and contrasted the two groups flourished—for example, the various stereotypes that each continues to hold about the other.

The development of the conjunto and the orquesta cannot be explained without reference

Left, the Conjunto Bernal (around 1965) and (far left) Narciso Martínez and Santiago Almedia, two leading figures in conjunto music (1938). Above, Beto Villa and his orquesta (around 1948). Top, an orquesta of working men (around 1915).

to this culturally charged atmosphere, but it would be an oversimplification to ascribe their vigour solely to that conflict. Since the beginning of the century another factor has complicated the issue—the opposition in Texas-Mexican society between two distinct socio-economic groups, the working class and an upwardly-mobile group striving for middle-class status.

The conjunto, soul of popular culture

The rapid evolution of the conjunto into a mature, standardized style between 1935 and 1960 can be linked to the cultural strategies of the *tejanos*—the mass of working-class people employed in unskilled and semi-skilled jobs in ranching, agribusiness, and retail services. A musical style forged by a class which faced discrimination not only from an oppressive Anglo community, but from an unsympathetic (if small) Texas-Mexican middle class, the conjunto is historically rooted in the working-class consciousness. In their preference for a unique folk style which they themselves created, the tejano workers have voiced their most profound cultural and aesthetic identity, embodied in their choice of instruments, genres and styles (all of them of Mexican character), and the appropriate context for their performance.

Of course, long before the modern conjunto ensemble of diatonic button accordion, twelve-string guitar, electric bass and drums had become standardized, the accordion had become a favourite instrument among the workers on both sides of the Texas-Mexico border. Cheap German models, with their single row of melody buttons, were easily obtainable for the dances of the tejanos and *norteños* (the people of northern Mexico).

But the popularity of the accordion did not go unchallenged. The Anglos, and later the upwardly-mobile Texas-Mexicans, were quick to condemn conjunto music. For example, in 1880 the *San Antonio Express* commented disparagingly on the fandangos where the tejanos danced, usually to accordion music: "These fandangos are becoming so frequent they are a great curse to the country. The respectable class of Mexicans do not attend them."

Despite such condemnations, by both Anglos and the "respectable class of Mexicans", the accordion and its dances flourished, acquiring a powerful presence that has endured to this day. Particularly during the generally prosperous post-war years (1946-1960), the modern conjunto experienced a rapid maturation and wide dispersal in Texas and beyond. In the hands of such notable talents as Narciso Martínez, Valerio Longoria, Tony de la Rosa, Paulino Bernal, Ramón Ayala, Flaco Jiménez and Estaban Jordán, the conjunto has maintained an unchallenged supremacy among working-class Texas-Mexicans.

The social strategy of the orquesta

In contrast to the conjunto, the orquesta style of music has tended, since the 1920s at least, to be more "respectable" in that it has maintained a strong association with the genteel elements of Texas-Mexican society. Although orquestas existed among the working class since the late nineteenth century, they were poorly equipped groups with a collection of makeshift instruments. This was especially true of rural areas, where the lack of social and economic resources made it difficult to maintain a well-organized ensemble.

In the late 1920s, a new kind of dance orquesta patterned on the American swing bands began to gain currency, particularly in the larger cities with their sizeable middle class. With a line-up of a least one trumpet, one saxophone, and a rhythm section of guitar, bass, drums and (occasionally) piano, the new orquestas soon acquired

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a unique Texas-Mexican character and had gained a solid foothold by the late 1930s.

These ensembles clearly articulated the strategies of the small but growing middle class, which became particularly influential after the Great Depression of the 1930s. This group attempted to distance itself from the Mexican workers and sought to imitate the lifestyles of middle-class Anglo-America. Hence its demand for American music, which was generously represented in orquesta repertoires by foxtrots, boogie-woogie and swing music.

But the orquestas did not by any means restrict themselves to American music. In fact the hallmark of the Texas-Mexican orquesta soon became its extreme stylistic diversity. It had far more faces than any of the musical styles that influenced it (including the conjunto). Even a cursory listening to the commercial recordings made since the 1940s reveals the eclectic repertoire, ranging from American swing to conjunto folksongs, through Latin American dances such as the danzón and the bolero. The orquesta has a characteristic tendency to transform the Mexican bolero into the Tex-Mex polka, a unique genre that oscillates between an American and a Mexican pulse by frequently interrupting the Latin American beat with several bars of swing.

The stars of the Tex-Mex orquesta are Beto Villa, who is considered the originator of the style, and Little Joe Hernández, whose innovations revolutionized its development. Villa, who became immensely popular throughout the southwest after the release of his first recordings in 1946, was most acclaimed for his folksy, "ranchero" polkas, although he successfully blended these homegrown polkas with the more cosmopolitan rhythms of the American foxtrot and the Latin American bolero and danzón.

Little Joe introduced a fresh wave of innovations in the early 1970s by infusing the Tex-Mex polkas of Beto Villa with a strong dose of American jazz and rock. This new sound, which took the Mexican-American community by storm, soon came to be known as *la onda chicana* ("the Chicano wave"). Such was Little Joe's success that his orquesta became virtually synonymous with Chicano music during the 1970s. Throughout the southwest, amateur orquestas were all striving to duplicate his original style.

The cultural significance of the orquesta is inextricably linked both to the working-class roots of the upwardly-mobile Texas-Mexicans and to their desire to become more Americanized.

The orquesta, aware of this bicultural existence, vacillated between Mexican and American styles and genres, between its folk roots and its newfound urban modernity, and between its working-class origins and its increasing affluence. The historical importance of the orquesta thus may be said to lie in the desire of the Mexican middle class to overcome the contradiction between attempts at assimilation and a persistent ethnic allegiance. ■

A musical blend which takes its harmonic concepts and instrumentation from jazz, and its themes, rhythms and beat from Afro-Latin cultures

Latin

By the time jazz got under way in New Orleans in about 1920, the African drum, banned in America during the slavery era, had completely disappeared. So practitioners of the new music borrowed the big bass drum of the military bands, topped with a cymbal, which provided the rhythm for the famous black parades that wended their way through the city's streets at carnival time or was used to accompany funerals. The drum served essentially as a metronome; it simply kept time, with almost no attempt at improvisation. Eventually the military drum gave way to the familiar jazz drum-kit, but even so American percussionists kept to fairly rudimentary rhythmic patterns right up to the bebop era of the 1940s.

In Cuba, however, where the African inheritance was still very much alive, the popular musicians of the day used a whole range of traditional percussion instruments—congas, bongos, timbals, kettledrums, claves (rhythmsticks), maracas, güiras (grooved calabashes)—that allowed them to build up rhythms in splendid confusion. Jazz musicians began to borrow these Afro-Cuban instruments in the 1940s.

As early as the end of the nineteenth century, however, black ragtime pianists in America had begun to use a bass line derived from the *habanera,* which the Creole pianist and composer Louis Moreau Gottschalk had brought back with him from Cuba some decades earlier. This motif, marked by a time-lag between the two hands, was taken up by the father of the blues himself, W.C. Handy, who travelled to Cuba in 1910 with the American army, and it was later adopted by such other pianists as "Professor Longhair", himself a native of New Orleans. Jelly Roll Morton, the self-styled inventor of jazz, had it in mind when he talked of the "Latin tinge" in his music.

When New Orleans's famous red-light district, Storyville, was closed down for good in the late 1920s, many musicians found themselves out of work and decided to travel north. New York became the new capital of jazz, and Fletcher Henderson, Duke Ellington and a host of other pianists helped light up the nights of Harlem, then in the midst of its famous renaissance. Several Cuban musicians, notably the flautist Alberto Socarrás, were attracted by the effervescent musical climate.

Puerto Ricans, who had gained American nationality in 1917, were also moving into town. They settled first in Brooklyn, then in East Harlem, a former Jewish and Italian district that quickly won the name of "El Barrio". Together with the Cubans, they opened theatres and clubs that provided a market for Latin rhythms. But the outlets remained limited, so many Latin musicians were also forced to learn to play American music.

Above, the Cuban percussionist Mongo Santamaría. Right, the Cuban singer and bandleader Machito in Paris (1975).

Jazz meets Cuban music

Socarrás started by playing the Cotton Club and in black revues, recording the first flute solos in jazz with Clarence Williams, Sidney Bechet's and Louis Armstrong's producer. Once he had built up a reputation, he founded a big band that mixed classical music, Cuban rhythms and jazz. His music was a total novelty at the time, and one contemporary American critic wrote of the "savage intensity" of the band's rhythm section. Although Socarrás was black, he overcame racial barriers in many clubs that had previously been closed to coloured bands, taking his tropical drums as far afield as Illinois and Nebraska.

The Puerto Rican trombonist Juan Tizol also embarked on an American jazz career, joining the Duke Ellington orchestra in the late 1920s. For Ellington he composed the first Latin jazz numbers, *Caravan* and *Perdido*. He also introduced

his boss to the structure of Cuban music which, unlike jazz which allows its soloists complete freedom of invention, is based on a very precise superposition of rhythms, each of which has its own particular part to play in an acoustic tapestry that is constantly changing. The conga follows one predetermined line, the bongo another. Bass and piano both also make their own contribution to the polyphonic rhythms. Whatever notes they may be playing, Cuban musicians must respect a particular style of phrasing that neophytes (and even experienced jazzmen) often find hard to pick up.

Other American bandleaders, among them Chick Webb and Cab Calloway, fell for the charms of the bolero, guaracha and rumba—all three of them Cuban imports. In turn, jazz made its first tentative incursions into Cuba. Duke Ellington went to Havana in 1933, and American-style big bands began to be formed there. But New York in the early 1940s was the real home of the fusion of jazz and Cuban music that became known first as "cubop" (from Cuba and bebop) then as Latin jazz once other rhythms were added to it.

In the late 1930s Mario Bauza, a one-time trumpeter with Cab Calloway who had grown tired of the watered-down Cuban music then to be heard from Xavier Cugat's orchestra and other dance bands, decided to form an ensemble that would blend real Cuban rhythms with jazz. He named his new band the Afro-Cubans, brought his brother-in-law, the singer Machito (his real name was Frank Grillo), over to join it, and won the backing of Calloway's arranger. At first the music was rough-edged; the band brought together Cubans, Puerto Ricans and an American trumpet-player, all of whom would riff wildly together at the end of the choruses. The trumpet-player sometimes stumbled on the Cuban rhythms, and the Latin members at first had difficulties with the complex harmonies of jazz. But Bauza gradually succeeded in blending the two musical languages, and the ensemble soldered itself into a cohesive whole. The Afro-Cubans made their public debut at an East Harlem club in 1940, and their daring new music soon won over the dancers. American drummers were particularly struck by the bongos, never having seen bare-handed drumming before.

Some Americans criticized the new music for

The early days of the Cotton Club in New York (1927), with Duke Ellington at the piano (left).

Three famous American jazz musicians: saxophonist Charlie Parker with bassist Tommy Potter and trumpeter Miles Davis (1947).

evoking the caricature of a "primitive" Africa as fostered by Hollywood films. Gradually, though, jazzmen lent an ear. Attracted by the band's signature tune *Tanga,* Stan Kenton in 1947 hired the percussionists to record his big hit *The Peanut Vendor.* But his grandiloquent style of jazz did little justice to true Cuban music. On the other hand Charlie Parker, who cut some tracks with the Afro-Cubans in 1950, at once caught the spirit of the music. His alto saxophone flies high on *Mango Mangüé, Okidoke, Canción* and *Jazz,* weaving a web of melody over a background of torrid rhythm.

A stunning conga player from Havana

The other great catalyzer of Latin jazz was Dizzy Gillespie. From the moment of his arrival in New York he fell in love with Cuban music, whose verve reminded him of the black rhythms of his native South Carolina. He first played with Socarrás, who taught him Cuban rhythms, then became friendly with Bauza, who brought him into the Calloway band. It was Bauza who, in 1946, recommended to Gillespie the extraordinary percussionist Chano Pozo, recently arrived from Cuba. Vain and a brawler, Pozo had built up a solid reputation in Havana as a conga player and composer. He belonged to a secret mutual aid society, the *nanigo,* that had originated in Nigeria and whose membership was limited to men who had proved their courage and virility. He was therefore well-placed to understand Afro-Cuban ritual chants and the more arcane features of the rumba.

Impressed by his drumming, singing and dancing, Gillespie hired Pozo to play in his big band. But the Cuban's rhythms clashed with those of the band's existing drummer, Kenny Clarke, since the downbeat of traditional jazz differed from that of Cuban music. Gillespie set about explaining jazz phrasing to Pozo, and the results were the classics of Latin jazz *Manteca* and *Tin Tin Deo.*

Latin jazz was also gathering momentum in Cuba, where some excellent bands were formed. But the Havana clubs, catering for the foreign tourist trade, generally preferred to hire bland cosmopolitan showbands rather than feature the invigorating local music. Nonetheless, the instruments and harmonies of jazz fused with Cuban percussion and rhythms in the remarkable big bands led by Bebo Valdés and Benny Moré.

Back in New York, Chano Pozo was shot dead in a Harlem bar in December 1948 at the age of thirty-three. But he had paved the way for a stream of other Latin percussionists to record with jazz musicians.

Cuban jazz moved out of the limelight in the late 1950s. It was Dizzy Gillespie who reanimated the Latin sound in the ensuing decade by bringing in fresh, Brazilian blood. On a trip to Rio he heard the popular samba and bossa nova, and brought the new sounds back with him to New York. In fact bossa nova, which had been created by the guitarist João Gilberto and popularized by the composers Carlos Jobim and Vinicius de Moraes and the guitarist Baden Powell, already reflected a jazz influence. Unlike samba, which was carnival music, bossa nova was calm and sophisticated, full of refined and unexpected harmonies. Its principal charm, though, lay in its distinctive driving rhythm, the *batida,* born of a slight asynchronization between the melody and its accompaniment that created a climate of ambiguity, as though the music were floating, suspended between beats.

Stan Getz made the new rhythm his own, and even while he was still coming to grips with its complexities made the album *Bossa Nova* that was to be one of his greatest successes. Cannonball

The American trumpeter, singer and bandleader Dizzy Gillespie in Paris in 1990.

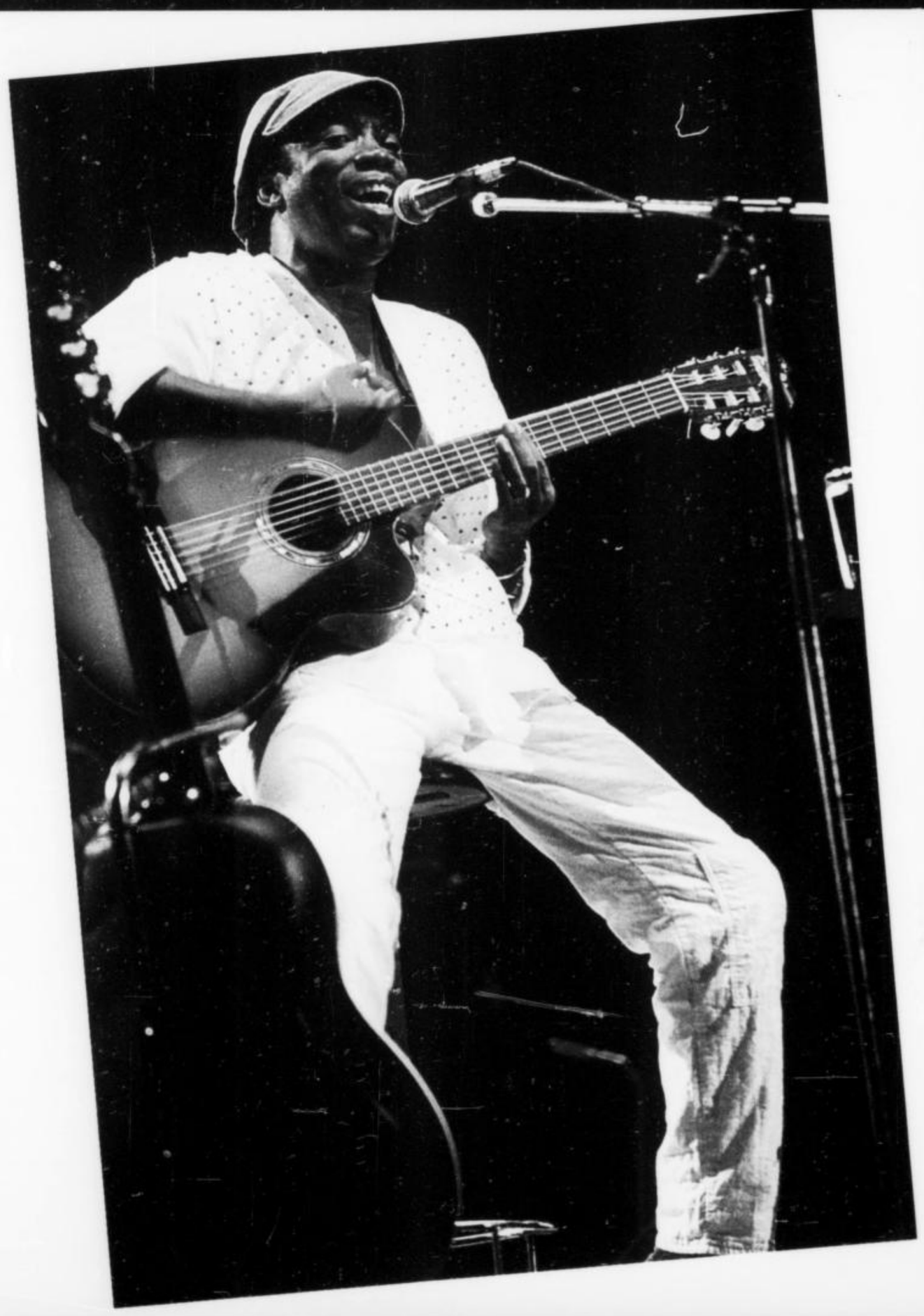
Adderley, Charlie Byrd and the musicians of the Modern Jazz Quartet (which played with the Brazilian guitarist Laurindo Almeida) also showed an interest in the subtle, swaying rhythms of bossa nova and in the samba's irrepressible energy.

In the early 1950s, Latin jazz combos gradually supplanted the big bands, made obsolete by the rise of rock 'n' roll. In 1953 the English pianist George Shearing formed a group in California that included several Cuban percussionists, one of whom was Mongo Santamaría. Shearing brought discs by local pianists back from Havana; he was particularly struck by their rhythmic understatement and their habit of playing melodic lines with both hands at once.

New York combos and Havana big bands

The other great combo of the 1950s was formed by Santamaría himself in New York, for as well as being an outstanding percussionist in the Afro-Cuban tradition he was also a formidable talent scout. First he hired the still-unknown Brazilian pianist João Donato, then Chick Corea, Hubert Laws and other future jazz stars. In the 1960s Santamaría spent some time in Brazil, fascinated by Afro-American music as well as Latin rhythms (*Watermelon Man* was his first big hit). He managed to integrate these different influences in a cohesive style that reflected his own strong personality.

In the 1970s, the young Colombian Justo Almario, a magisterially talented flautist, saxophonist, arranger and composer, collaborated



Above, the Cuban trumpeter Arturo Sandoval during a concert in Cuba (1989). Above left, Carlos Jobim (left) and Vinicius de Moraes, two great Brazilian exponents of bossa nova. Left, the Brazilian musician Milton Nascimento in 1986.

with Santamaría, bringing fresh dynamism to the line-up. Witness the superb *The Promised Land,* in which a richly harmonic passage for flute and saxophone follows a prelude reflecting the influence of John Coltrane; while Almario's improvisation with Al Williams on *Song for You* is one of the most exquisite and rigorously constructed flute solos to be heard in either the jazz or Latin traditions. On his *Ubane* album, Santamaría introduced the cumbia, a traditional Colombian rhythm played on the hand drum, while on *Red Hot* he featured a richly melodic little samba of Almario's.

Politics cut Cuba off from America after 1960, but young Cuban musicians nonetheless continued eagerly to soak up the jazz influence. It came as a surprise to Dizzy Gillespie, when he visited Havana in 1977, to find just how high a standard the local musicians had maintained. His present big band includes three Cubans: the trumpeter Arturo Sandoval, whom he met in Havana; the drummer Ignacio Berroa; and the saxophonist Paquito D'Rivera. Gillespie, a long-time connoisseur of tropical rhythms, also hired, alongside his American sidemen, a Puerto Rican percussionist, a Panamanian pianist, a Dominican saxophonist, three Brazilians and a trombone player of Mexican descent.

Two years after Gillespie's Cuban trip, the Havana-based band Irakere, mixing African drums, electric guitars and synthesizers, swept into the United States like a musical whirlwind, carrying off a Grammy award—the nation's highest music-industry honour.

The present generation of Cuban musicians remains open to outside ideas, but combines the search for a determinedly new sound with the desire to remain within the island's musical heritage. Among the best of them is the young pianist Gonzalo Rubalcaba, a scion of one of the island's most distinguished musical dynasties whose group has performed successfully at several international festivals.

Brazil, like Cuba traditionally a musical melting pot, also has an active Latin-jazz scene. To create original sounds, the Zimbo Trio, guitarists Egberto Sigmondi and Toninho Horta, the saxophonist Paolo Moura, the pianist Wagner Tiso and the multi-instrumentalist Hermeto Pascoal all draw on a variety of sources: samba, bossa nova, the folk traditions of the Northeast coast, and the music of the African-inspired cults, *batucada, candomblé* and *afoxé.*

Hailing from Belo Horizonte, Milton Nascimento draws inspiration from his native Minas Gerais for his moving and dream-like music, full of unfamiliar harmonies, whose rhythms are unlike those of the samba and the bossa nova. The poignant beauty of his compositions has attracted the attention of such American jazz musicians as Stanley Turrentine, Sarah Vaughan and Herbie Hancock, all of whom have provided loving cover versions.

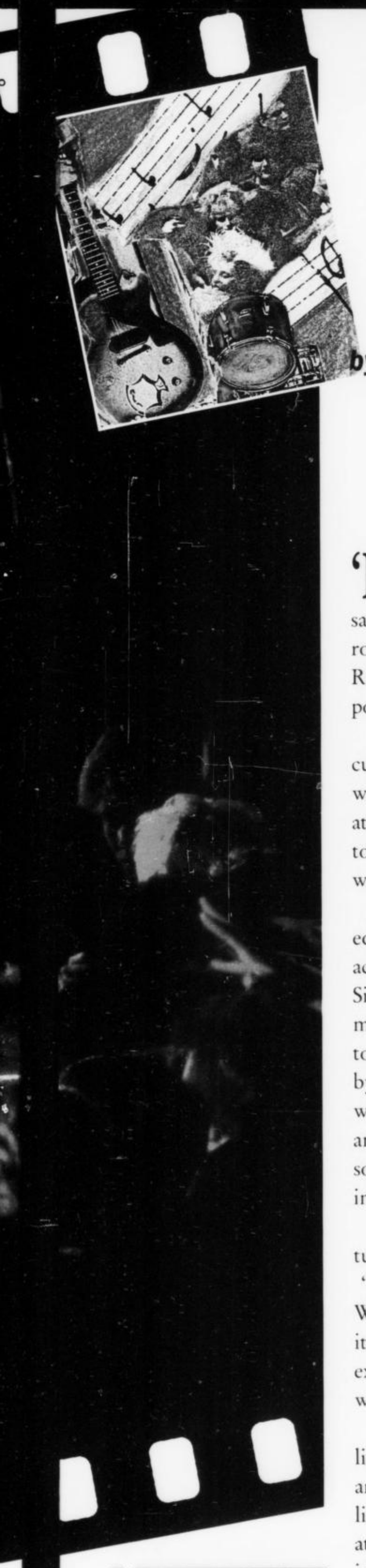
On the whole, however, the Brazilian music industry has not proved very welcoming to Latin jazz, so many of the best practitioners such as Airto Moreira, Tania Maria, Eliane Elias and Dom Salvador have found larger audiences for their music abroad, particularly in the United States. In American clubs and recording studios, the jazz and Latin traditions continue to enrich each other as happily as in the past, and Brazilian music still offers jazz its subtle harmonic palette.

In New York, a magnet for people of many cultures, Latin jazz is currently engaged in a process of intense cross-fertilization. Besides the Brazilians, there are Argentine musicians drawing on the lyrical inspiration of the tango, Colombians with the warm rhythms of the cumbia, Dominicans with the turbulent merengue, as well as musicians brought up to the rhythms of the languid Jamaican calypso, the cadenced tamborcito of Panama and the fiery bomba and plena of Puerto Rico. New York Puerto Ricans like Tito Puente, growing up at the meeting place of all these divergent styles, integrate many different influences in their music, including jazz, soul, salsa and Afro-Cuban and Puerto Rican folklore. The Cubans who arrived after 1980, among them Paquito D'Rivera and Ignacio Berroa as well as the master-drummers Daniel Ponce and Puntilla, also spice their music with the rhythm of the songo, invented in Havana in the 1970s, as well as with elements of the black traditional music of their homeland.

Today Latin jazz is enjoyed around the world by a growing number of enthusiasts. Bands from Africa, Japan and Europe happily try their hand at it, showing that while it is sometimes difficult for the different nations to reach political accord, musical unity is already a reality.

Can Russian rock survive now that it has emerged from underground?

In foreground, Pyotr Mamonov, lead singer of a Russian rock group.



The rockers' lament

by Aleksandr Sokolansky

'ROCK is more than music, it's a way of life," said Boris Grebenshikov, a leader of the Russian rock movement in the 1980s—a time when most Russian rockers were well acquainted with poverty, underground existence and persecution.

Rock music became assimilated into Russian culture between the late 1960s and the late 1970s, when it was perceived as bearing a dynamic and attractive image of Western civilization. To listen to this kind of music or to play in a rock group was a relatively safe form of dissidence.

In the early days even the most rudimentary equipment was in short supply, and for rockers access to a stage or concert hall was difficult. Singing to guitar accompaniment in private apartments became a tradition which is still widespread today. The movement was strongly influenced by such immensely popular poets and songwriters as Vladimir Vysotsky, Bulat Okudjava and Aleksandr Galich. Rock lyrics, rich with social and political meaning, are usually more important than the music itself.

Russia's rock generation belonged to a culture of dissatisfaction, disillusion and frustration. "We know a new dance, but we have no legs. We went to see a new film, but they suppressed it," sang the Leningrad group Aquarium, expressing all their resentment at a way of life which disgusted them but seemed unchangeable.

In the early 1980s the rock generation established close contact with young post-avant-garde artists, poets, film and theatre directors. They lived and worked in the same underground atmosphere conducive to an active exchange of ideas. In this period rock music grew into a unique and original phenomenon of Russian culture. Tastes were shaped by such groups as Aquarium, Kino, and Zoo, whose lead singer Mike Naumenko included both traditional rock 'n' roll and captivating ballads in his repertoire.

Popularized clandestinely and through the samizdat press, Russian rock gradually established itself as authentic modern folklore. It mocked official light music and came into direct confrontation with the cultural establishment of an authoritarian society. The repressive campaign that was launched against rockers in 1983 wrecked many lives but failed to crush the rapidly developing movement. By the mid-1980s the rock movement was still working underground but it had already developed a production network and a recording industry.

In the mid-1980s the social climate relaxed somewhat, giving rise to a new wave of optimism. Perhaps the world had still not changed for the better, but people had at least acquired a certain freedom in their relations with it. The new frame of mind was characterized by a spirit of solidarity and a desire for action. Rock music rapidly evolved a less aggressive, more thoughtful philosophy.

Then, at last, it came out into the open. Rock records were issued, mass concerts were held, television programmes were devoted to rock music, and groups toured the country. Paradoxically, however, legalization of rock music was followed by a period of decline. In a more open society, rock ceased to be a universal language of communication between non-conformist youth. Many intellectuals also lost their enthusiasm for it. Perhaps Russian rock was capable of anything except becoming just another art form. The new generation wants soft drinks; rock is too strong a brew.

Nevertheless, a few Russian rock groups are entering the 1990s with confidence. The most prominent among them is DDT, whose lead singer Yuri Shevchuk claims he is ready to meet any challenge. Perhaps the swan song of Russian rock has not yet been sung. ■

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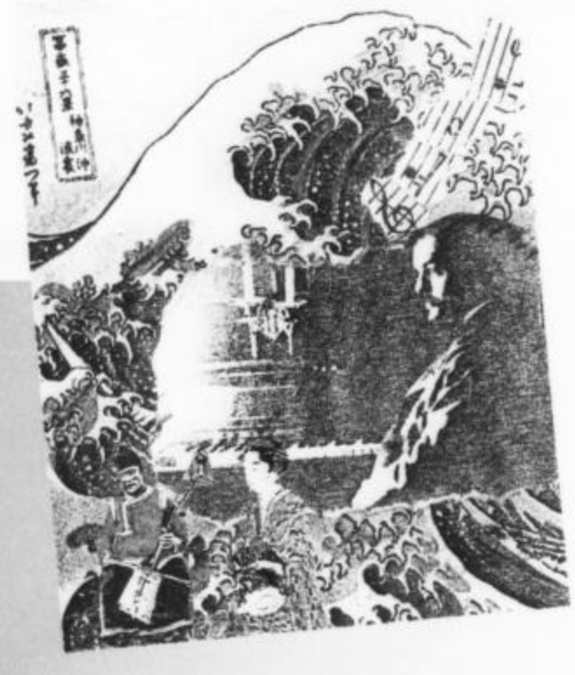
is a Soviet art and drama critic. His many publications on the theory and practice of the modern theatre, the avant-garde and rock culture include "The Images of Russian Rock".

Echoes from afar

by Véronique Brindeau



Music from other cultures has helped many composers to discover their creative identity

THE Paris Universal Exposition of 1889 revealed to Debussy the music of Java and the theatre of the Far East. The musical results of this shock were soon to appear in his work. What concerns us here, however, is the extent to which Debussy's discovery was a sign of the times of which he was a witness. For in his attitude, his willingness to listen to the music of other cultures and assimilate elements of it into his own creative activity, this composer so often cited for his role in the modern movement was anticipating the behaviour of many later musicians.

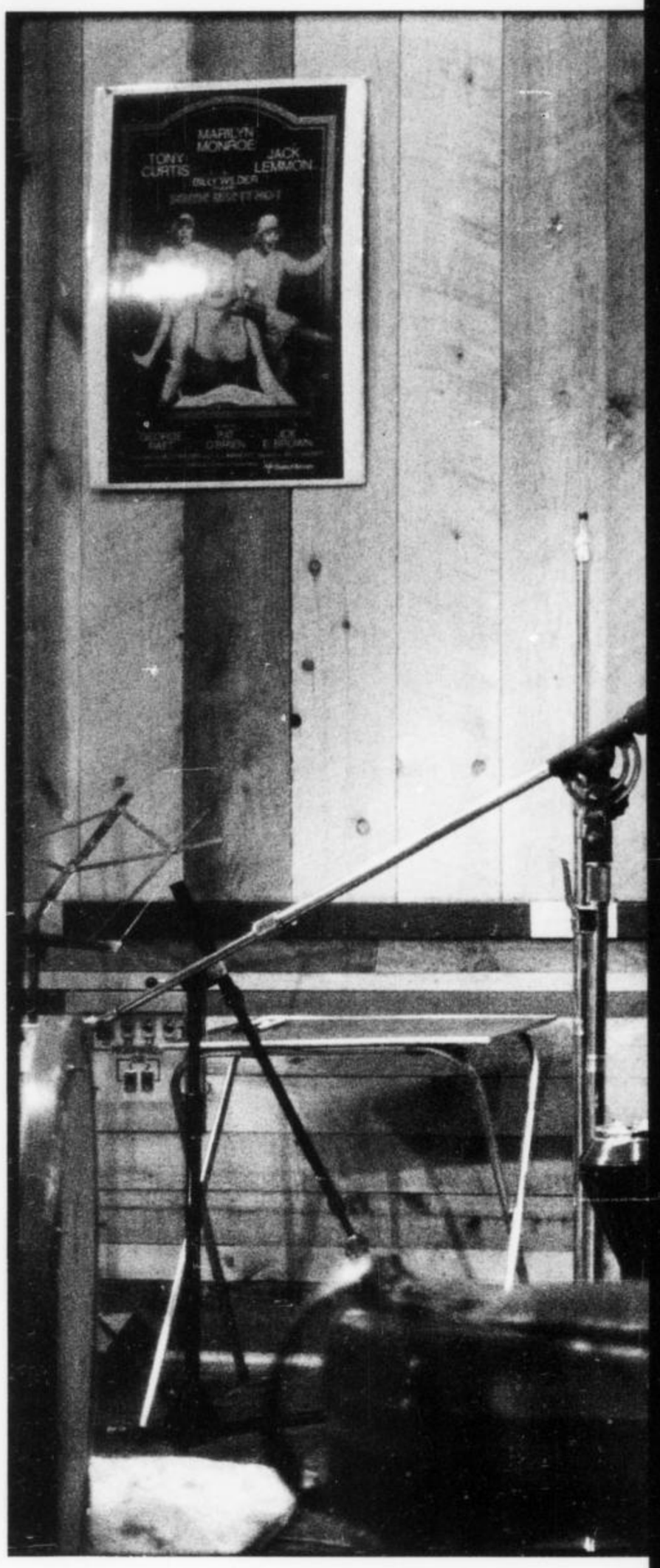
Debussy's encounter with Asian music did not lead him to borrow phrases, to imitate or adopt the superficial colouring of another style. In a word, it did not lead him to exoticism. What now began to appear in his works, particularly his piano pieces, was in part a new sense of distance but above all a confirmation of styles of composition that were already apparent but now became more pronounced.

Debussy might have reflected the influence of Javanese music in a more direct and literal way. His attraction for what he saw in it tells us something about the kind of person he was, in the sense that he seems to have taken from a world of sounds that was unfamiliar to him something that—with his fascination for timbre and resonance—he already possessed. This was the time when he was writing *Pagodes* for piano, which recalls the Javanese *slendro* scale.

Encounters and metamorphoses

One of the many questions this story brings to mind is how the profound changes of the present century, and especially the revolution in communications and in recording techniques, have affected the impact of similar discoveries on other composers.

Encounters with cultures radically different from their own have marked an important step in the work of many twentieth-century artists, not only musicians but painters who experienced



a revelation when they discovered African art or Chinese wash drawings, or even painting in oils and pastel.

What has for the most part been new in this century is that musicians have no longer limited their use of foreign models simply to imitative borrowing. Theirs has been no tourist's glance at an unfamiliar culture. This is not, of course, to deny that many compositions have revelled in the idiom of their models, from Erik Satie's *La Tyrolienne* to the tearoom chinoiserie of Ravel's *L'Enfant et les sortilèges*—Ravel, who so skilfully harmonized his *Cinq mélodies grecques* and composed his *Chansons madécasses* with far-away Madagascar in mind.

What we have seen is a rapid metamorphosis, in which composers have striven to incorporate as organically as possible in their own music

In a studio in New Mexico (USA), composer Tony Hymas (at the keyboard) records his work *Oyaté* with American Indian saxophonist Jim Pepper.

elements that they had discovered in other musicians' work. I say other "musicians", because I think that it makes more sense to talk of the process in terms of learning from other individuals and forms of music rather than from styles that are specific to different world regions.

It is worth pointing out at this juncture that the very idea of cultural intermixture implies that traditions are in some curious way "pure", whereas they are, of course, virtually inextricable from a highly complex pattern. To divest them of all the blends and alloys that have gone into them as they have been shaped by the history of peoples, their instruments, and their wanderings is to simplify the picture and introduce notions of frontiers jealously defined and defended.

How important are cross-cultural encounters for composers? Often when the change in their work is closely scrutinized, all it boils down to is the discovery of a particular score—and the study of that score, for without study the initial impression would leave only a passing wave of enthusiasm and not stimulate any real creative power. The role that Asian theatre played in Debussy's creative development could in this respect be compared to works closer to his own tradition that also inspired him, such as Mussorgsky's opera *Boris Godunov*, or even the writings of the French poet Pierre Louÿs.

The work of Oliver Messiaen raises the same question. Peruvian folklore plays a part in *Harawi*, and *deci-talas*—rhythms borrowed from Indian music—were of crucial importance in his work on intervals; but the influence of India, like that of Japanese court music on his *Sept hai-kai*, was eventually melded into a language that was

the composer's own, taking its place along with such other influences as plainsong, bird-calls and the Christian faith.

Recognizing oneself in others

For several contemporary composers, however, contact with non-European music has had a more profound effect, taking them on something other than a mere armchair voyage to the land of their inspiration. Some have visited the country that caught their attention, or even studied under one of its master-musicians.

Look at the work of these musicians more closely, however, and you will find that the payoff, however much it may have deepened the first shock of discovery, invariably only went to confirm the initial effect. Take Steve Reich's fascination with Ghanaian drumming, for example. In fact he only spent three weeks in Ghana studying it. What he learned served to confirm and develop tendencies that were already apparent in his work, notably in his researches into the superimposing and separating of musical units and the signals needed to break a pattern in moving on to the next phase of a composition.

Reich's experience calls to mind that of Jean-Claude Eloy with regard to Japan. Eloy discovered oriental traditions at a point in his life as a composer when, as with Reich, something new was emerging in his work, encouraging him to break with the academic traditions which had shaped him but which were perhaps starting to seem constrictive. In Japanese music he found an image of his own musical aspirations.

An encounter of this type is not so much a matter of imitating or intermingling styles as a way of recognizing elements of oneself in someone else. And that process need not involve exotic cultures. For Bartok, for Kodaly, for all those composers, particularly in Scandinavia, whose work was initially shaped more by academic tradition than by the sounds around them, the route to self-discovery lay not in the Far East or Africa but at home.

Ransacking the shelves of history

For many composers, though, distance is synonymous with freedom, particularly in matters of rhythm, pitch or tonality. Such has certainly been the case for the Japanese composer Takemitsu, who first fell in love with Western music, then

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returned to study his own musical tradition, and whose work now flows freely from both these sources of inspiration.

Such examples raise the question of whether there is a difference in kind between seeking inspiration from foreign cultures and from history—the repository to which composers traditionally, and peacefully, apply. In effect, all sources, whether near or far, are grist to the composer's mill. Half-cuckoo and half-bee, he takes up his lodging where he will and turns whatever nourishment he finds there into musical honey. As a consequence, any reference a Western composer makes to an Asian or an African theme, no matter how respectful or closely-studied it may be, may have relatively little significance as compared with the influences that same artist has picked up, consciously or not, from his predecessors. For is there really any difference in the mechanism by which, say, listening to Mongol songs would influence a musician's development as compared with studying the way in which one of his own precursors treated the melodic unit?

Music of other times and other places

Thus a sense of affinity may draw a composer to study, often in a detailed way, either the music of distant lands or the past traditions of his own country. Both Mauricio Kagel and François-Bernard Mâche, in their very different ways, take into aesthetic account the tonality of the instruments of the Middle Ages as well as of non-European cultures and of rare languages.

John Cage chooses opera as the starting-point for a playful process of superimposition and of assemblage in his unique work *Européra* (1990), which includes references to more than a hundred operas from the repertoire. Stockhausen made use of hymns from all over the world in his 1967 work, *Hymnen*.

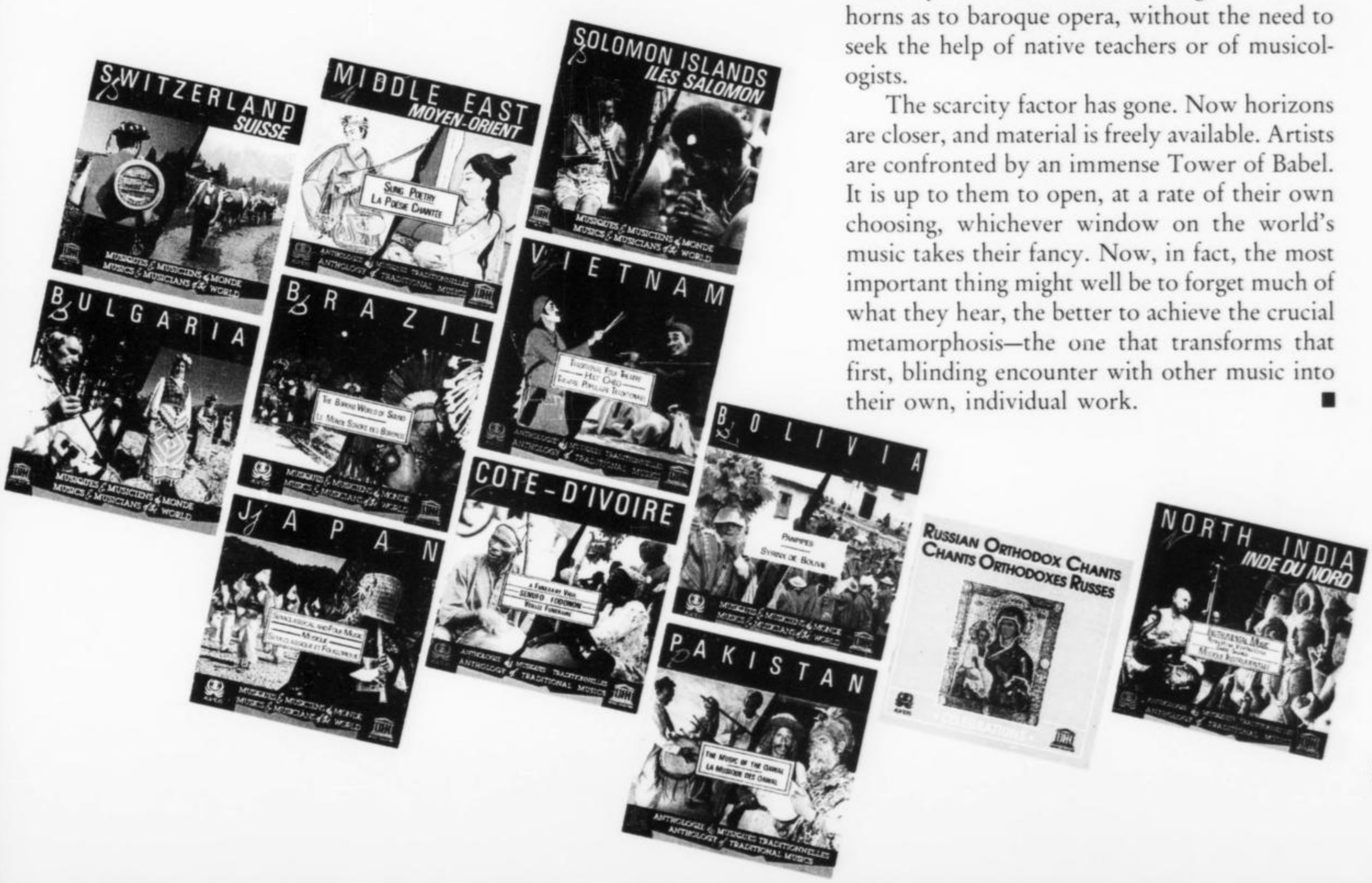
These cultural intermixtures also lead eventually to a fusion of genres, a breaking down of barriers between different categories of music. When Pierre Boulez conducts a work by Frank Zappa, or when Michel Portal alternates between playing jazz and Mozart (or when he improvises with traditional musicians, as in a recent Lille Festival performance appropriately entitled *Métissages* or "cross-fertilizations"), the contours separating contemporary music from jazz and rock disappear.

This process seems to be largely in the hands of musicians who practise improvisation. There was a time when groups like Can and the Sun Râ Orchestra recruited would-be Stockhausens; but now for the most part composers of "serious" contemporary music choose to remain strictly within the boundaries of their own musical traditions. The dismantling of barriers is mainly left to the exponents of so-called "crossover" music, whose very name indicates the route they intend to take.

It is not certain that the music of distant lands holds an attraction for composers today. The wealth of recordings now available means that it is as easy to listen to Eskimo songs or Tibetan horns as to baroque opera, without the need to seek the help of native teachers or of musicologists.

The scarcity factor has gone. Now horizons are closer, and material is freely available. Artists are confronted by an immense Tower of Babel. It is up to them to open, at a rate of their own choosing, whichever window on the world's music takes their fancy. Now, in fact, the most important thing might well be to forget much of what they hear, the better to achieve the crucial metamorphosis—the one that transforms that first, blinding encounter with other music into their own, individual work. ■

Left, Djamchid Chemirani of Iran plays the zarb, a goblet-shaped drum, with the American musician David Hykes (1990).
Below, a selection of compact discs produced by Unesco.



From guitar to qanun

The unusual career of Julien Jalal Eddin Weiss

Born in Paris, son of a Swiss mother and a French father, Julien Jalal Eddin Weiss was trained as a classical guitarist. In 1977 he started to learn to play the qanun (an Arab string instrument), and in 1983 founded Al Kindi, an instrumental ensemble devoted to classical Arab-Islamic music, with which he has since toured many countries.

WHEN I was in my teens I began to learn the classical guitar, which pianists and violinists tend to regard as a somewhat marginal instrument because its intimate sound is more suited to solo performances than orchestral work. Its repertoire is extraordinarily eclectic, but the dominance of Hispanic folk music made me familiar with particularly effective kinds of musical intermixture very early in my career.

During a long stay in the Caribbean I studied jazz harmonies and Brazilian and Afro-Cuban rhythms. This liberated me from the rigid written repertoire of my classical training and allowed me to improvise within a framework of harmonic rules which though complex were much less restrictive. I felt that I was getting rid of the heavy chains that bound me to repetitive exercises which were alien to the essence of music and left no room for either emotion or imagination.

I already thought that living forms of music, both popular and classical, had an incomparable vitality and expressive force. I became interested in other types of improvisation, and as I progressed I composed a number of contemplative works laced with Ravelian dissonances and Afro-Cuban, Brazilian and Indian rhythms.

I soon learned that the spontaneous creation of a rhythmic and melodic idiom was not exclusive to jazz but was the basis of traditions such as that of classical Arab-Islamic music, which does not suffer from its lack of a harmonic structure but celebrates the divine unity of a spare and graceful monody, pure and penetrating, full of hidden meaning, which the prolixity of harmony would disguise and deaden.

I discovered this Arab music by chance, while listening to a recording by Munir Bachir, one of the great masters of the qanun. I had already come across the *taqsim,* an Arab-Turkish form of improvisation, but the qanun was a revelation.

For the next six years, I worked on both the guitar and the qanun. Then, in 1984, the Tunisian singer Hedi Guella invited me to play in the first part of his show at the Carthage festival, in front of 7,000 people. The public were indifferent to my performance with the guitar, but they greeted my qanun playing with enthusiasm. From that moment on, I knew that I would dedicate myself to the qanun.

Ever since then my work has had something in common with that of a musicologist. Apart from the daily ritual of practice, I have studied at length the history of Islamic music and civilization, concentrating primarily on the work of the great Orientalists. I have rediscovered many vocal and instrumental pieces, both structured and improvised, which were useful for comparative study, but also as the basis of arrangements for the Al Kindi ensemble which I was then setting up, and as additions to my repertoire as a soloist.

I explored different classical traditions: the Syrian *muwashah,* the Egyptian *dawr,* the Iraqi *maqam,* the Persian *tshaharmezrab,* the Turkish *bashraf.* Each of these opened up a new dimension for me: the lack of orchestral ornamentation and the virtuosity of Persian music; the Bedouin ruggedness and majesty of Iraqi music; the melodramatic cadences of Egyptian music; the mystical depth and surgical precision of Turkish music; and the multiple facets of the Andalusian music of North Africa.

My compositions are impregnated with all these diverse musical forms. The Western influence is also present, although in small doses these days. One of the blends I like best can be heard in *Wasla Bagdadi,* a piece for the qanun in which I introduced Persian musical effects into Iraqi rhythms and added hints of Kurdish phrasing and the Somali pentatonic scale.

I have however composed one polyphonic work, inspired by the sober romanticism of Erik Satie, and on occasion I have enjoyed playing in iconoclastic mixed sessions. I have played the qanun with the Paris Symphony Orchestra and the chorus of Radio France on film soundtracks, with Arab-French rock singers, and in a performance of the medieval music of Guillaume de Machaut and Adam de la Halle.

But the most extraordinary experience I have ever had was when I performed a work by the contemporary composer Francis Bayer with an ensemble made up exclusively of traditional instruments—the Tibetan trumpet, the Turkish ney, the shenay of Benares, the Japanese koto, the Indian sitar, the Balinese gamelan, the rain rod of the Australian Aborigines, the gong of the opera of Beijing, the Iranian zarb, and the Indian tabla. For someone like me, who seeks musical marriages of all kinds, this was something quite unique. ■

Song of India

by Romain Maitra

From Messiaen to the Beatles, the vogue for Indian music in the West

IN any cross-cultural transfer, complete idea-systems never travel easily. Only fragments tend to be transmitted. In the case of the influence of Indian classical music on the music of the West, technical elements such as *raga* (colour or mood), scales and timbre have sometimes been adopted by Western composers and integrated into their individual styles and conceptions.

Aleksandr Scriabin and Gustav Holst were among the European composers who have been influenced by Indian culture and music. Both were interested in theosophy, a nineteenth-century synthetic religion that brought Indologists, philosophers, quacks and generous society ladies together beneath the all-embracing canopy of Hinduism. Scriabin's ideas about emotion and colour perhaps owe something to the concept of *raga*, and Holst incorporated some of the hymns of the Rig Veda in his *Planets*. The French composer Olivier Messiaen admired the melodic contours and ornamentations of Indian music, and developed a rhythmic theory which seems to be inspired by Indian *tala* or pattern of beats. In his piece *Oiseaux exotiques*, the percussive passages execute *tala* as a counterpoint to the music of string and wind instruments.

The modern American composers Henry Cowell and Alan Hovhaness used elements of Indian music in their *Madras Symphony* and *Madras Sonata* respectively. Lou Harrison and John Cage also had deep and perceptive Indian musical connections. In his *Construction in Metal* Cage was inspired by *shrutis* or microtonalities, and in his *Sonatas and Interludes* for piano he attempted to express in music the *sthai bhavas*, the abiding states of emotion which help conjure up the aesthetic response of *rasa* or flavour.

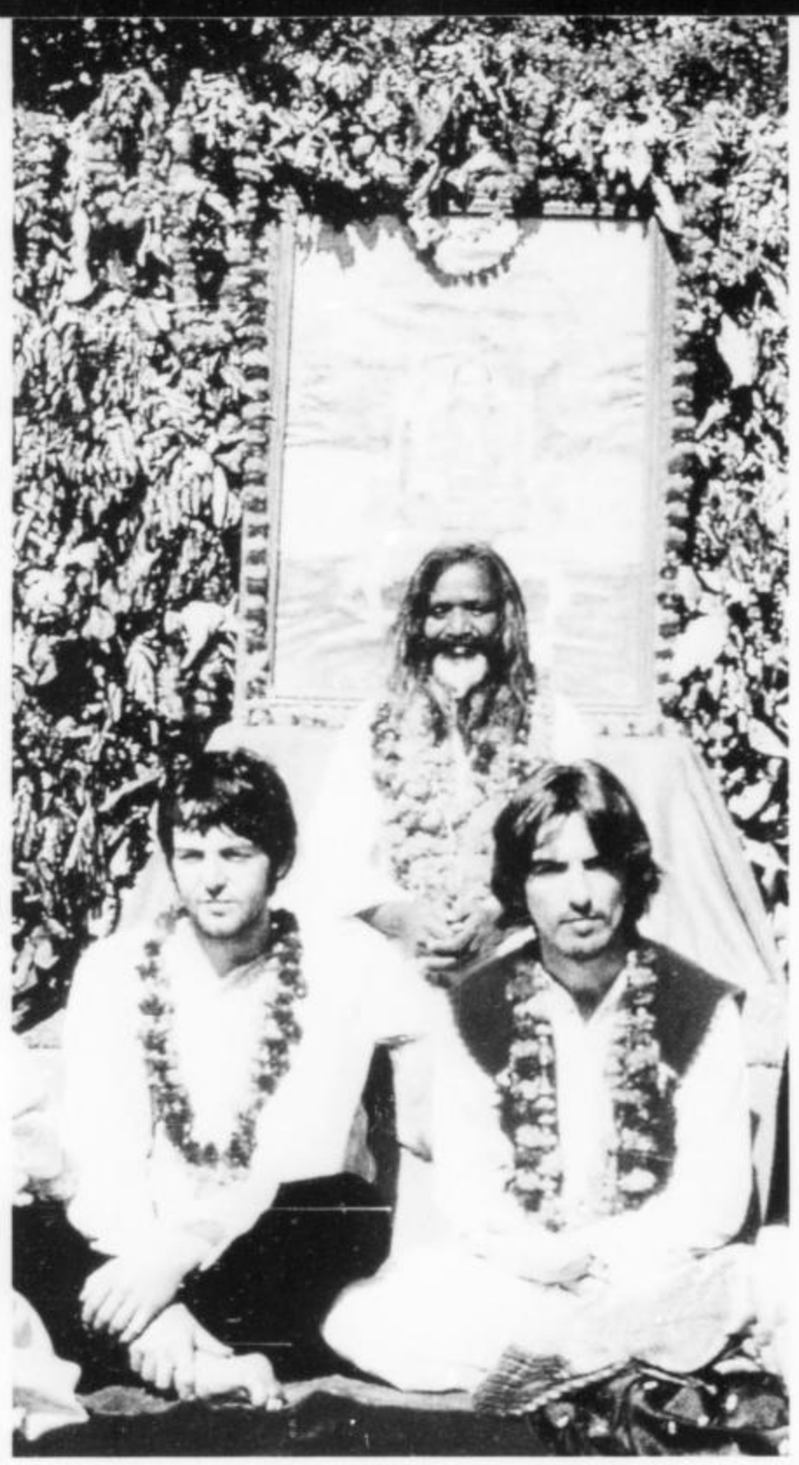
More recently, La Monte Young and Terry Riley have had a strong connection with India through their guru Pandit Pran Nath, who taught them Hindustani vocal music. In his *The Well-Timed Piano*, Young used *raga* scales moving in and out of the texture against the continuous drone of the piano. It is also possible to detect in the works of Philip Glass and Steve Reich the hidden fibres of oriental inspiration. John Barham is a Western composer who has used the piano as if it were a *santur*, or Persian dulcimer.

Indian music and Western jazz and pop

A notable surge of interest in Indian classical music began in the West and especially in the United States in the 1950s, at a time when American society was waking from the conservatism of the post-war era. The atmosphere of experimentation and change was symbolized by concern for Civil Rights, by the creation of the Peace Corps, and by the growth of a number of protest movements. With the spread of the

Above, the Indian ensemble Shakti, which was formed by British musician John McLaughlin.

ROMAIN MAITRA
is an Indian journalist, writer and cultural anthropologist. He is currently working at the Maison des Sciences de l'Homme, Paris, on a study of the image of the Indian world presented by French film-makers.



Beatles Paul McCartney and George Harrison during a trip to India in 1968.

The Indian sitarist and composer Ravi Shankar (left) with the American composer Philip Glass.

alternative culture of the young and its penchant for holy gurus and the magical, mythical image of India and its religion, Indian music became an important part of the new scene.

By the 1960s, Indian music was attracting large audiences in London, Paris, New York, Chicago, Los Angeles and other big European and American cities. It seemed fresh and exciting, with deep spiritual qualities and tranquillity. Many jazz-lovers thought that it resembled jazz because of its potential for improvisation, the scope it offered for the artist and the resources of the Indian scalar or modal system.

Its great popularity was due to individuals such as Ravi Shankar, Ali Akbar Khan, Yehudi Menuhin and George Harrison, rather than to groups or movements. Ravi Shankar played a particularly important role. In order to make Indian music more accessible to Western audiences, he departed from Hindustani tradition by starting his concerts with a short piece which was followed by increasingly longer items. As he said in the introduction to his recording of *Concerto for Sitar and Orchestra:* "the listener will not find much harmony, counterpoint or sound patterns he is used to, and which form the basis of Western classical music. I have consciously avoided these, only using them minimally, because they are elements which, if emphasized, can spoil or even destroy the *raga-bhava* (the mood and spirit of the raga)."

George Harrison successfully endorsed this effort to introduce unfamiliar Indian music to audiences used to Western pop by removing some of the difficulties. The exotic tone of the sitar can be heard in the song "Norwegian Wood" on the Beatles' album *Rubber Soul* (1965) and in "Within You Without You" on *Revolver* (1966).

Another approach to Indian music was adopted by the jazz trumpeter Don Cherry in his piece *Humus,* which is based on a series of simple themes, sounds, rhythms and two *ragas,* although the trumpet is not exactly an ideal instrument for producing the characteristic microtonal glides of Indian music.

Meanwhile, in India the violin and clarinet have long been conspicuous in classical, semi-classical and even some folk music. Although Western classical music has not made any noticeable impact on Indian music, pop and rock have had a strong influence on film music, most of which lacks any authentic identity or organic link with the classical mode.

Although Indian music has assimilated many influences in the past, the mixing process has been gradual, an attempt to find the new without losing the essential characteristics of the old. However, the last two decades have been a heady time for successful Indian performers, who have earned big money and popularity abroad. Welcome though it is that Indian music has borne such a variety of fruits in the West, great care must be taken to maintain an environment in which it can flourish at home. ■

The Caribbean group Kassav' in concert, Paris, 1986.

Exciting new sounds and rhythms from the Third World are bursting onto the Western pop scene

by Alain Gardinier

'World Music' or sounds of the times

THE international success of musicians such as Kassav', Ofra Haza, The Sabri Brothers, Mory Kante, Johnny Clegg and The Gipsy Kings, who hail from the Caribbean, Israel, Pakistan, South Africa and France respectively, has turned them into representatives of a new musical trend of major importance, an audio revolution which has been variously described as "World Music", "sono mondiale" or "musique métisse".

In the developed countries, the standardization of sounds and musical trends and the extreme harmonic simplification resulting from the fierce competition to make hit records, has jaded the public, which has turned to new kinds of music as a source of unusual and original sensations. At the same time, the spread of long-distance travel, the attraction of new technology and the need of artists everywhere to widen their horizons, have paved the way for new musical textures.

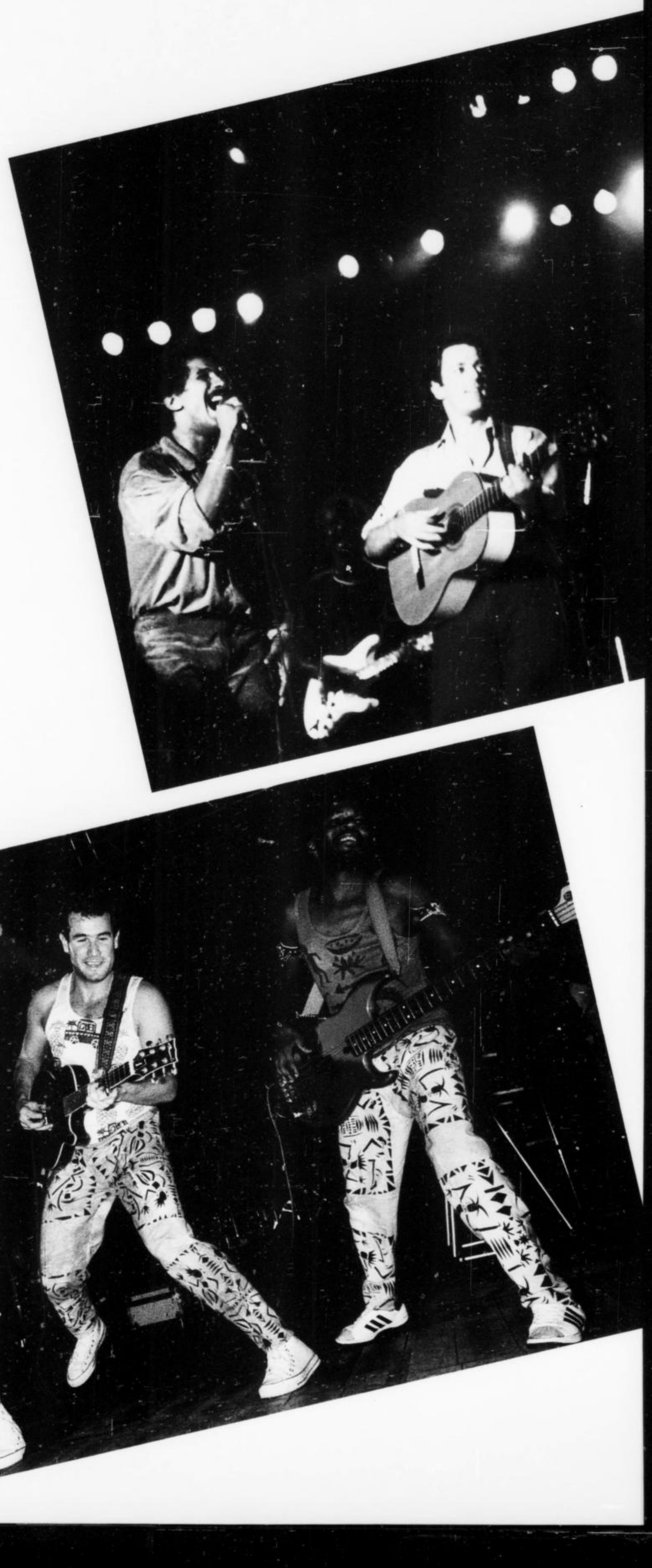
Today, World Music knows no frontiers. Some Third World performers have made records that have achieved international success. "Yeke Yeke", a song adapted by Mory Kante from the traditional music of the Malinke people of West

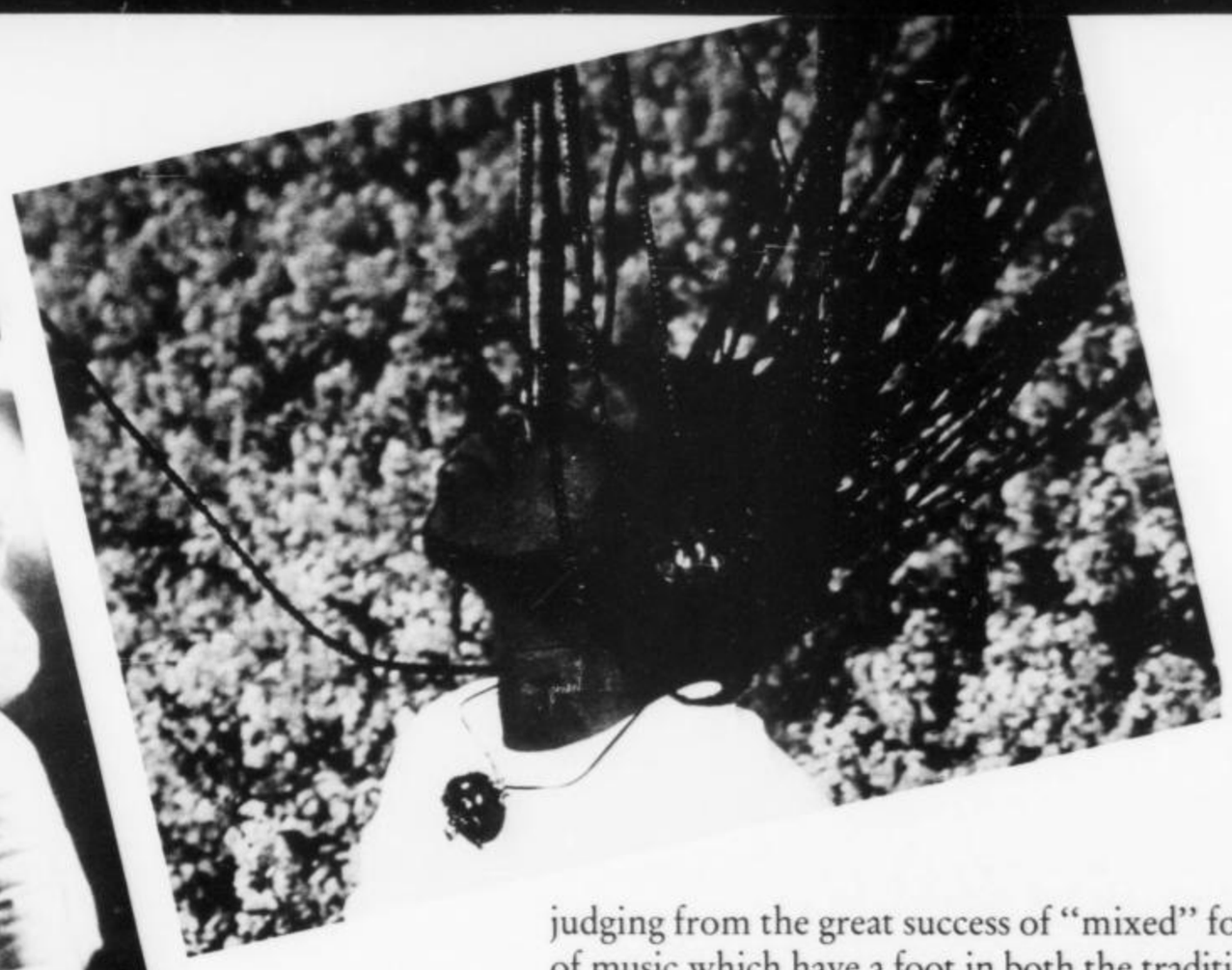
Africa, became a worldwide hit. The Senegalese singer Youssou N'Dour joined international stars Sting and Bruce Springsteen on a world tour in support of Amnesty International.

There is nothing new about solo performers and groups from Asia, Africa and Latin America who win a reputation in the West. What is new is the musical and technical collaboration which has developed between them and Western performers and has enabled them to enrich their art and to take advantage of modern recording and production techniques. Naturally, what they want most of all is access to distribution networks which can bring their work to a wide public, unlike traditional music labels which only reach a limited audience.

This is not just a one-way exchange. Rock groups have been taking an interest in traditional forms of music ever since the 1960s, when the Beatles visited India and became so enthusiastic about Indian music that they tried to popularize it in the West, incidentally bringing fame to the sitarist Ravi Shankar. The Rolling Stones in their turn helped to make known Moroccan musicians. Around this time many other Western artists reissued adaptations of hits from other parts of the world, notably Latin America.

The scope of the movement is wider today, and is in many cases associated with a real desire to learn from other cultures. Playing alongside African, Indian and Latin American musicians, artists such as Paul Simon and Peter Gabriel have created a new dynamic. The success of Paul Simon's *Graceland* album, based on traditional South African rhythms, has helped a number of South African artists to break into the international market.





Opposite page: the South African singer Johnny Clegg (centre) and his group Savuka at Angoulême (France) in 1987.
Above left: Cheb Khaled (left) and The Gipsy Kings at the "Gypsy Mosaic" festival held at Nimes (France) in 1990.
Above: the Ugandan singer Geoffrey Oryema.

It remains true that many more artists from disadvantaged countries are flocking to the West than vice versa, usually to their former colonial metropolis. Indians tend to head for London, French-speaking Africans for Paris. At the moment this trend shows no signs of changing, but perhaps the new movement towards World Music will also encourage exchanges between Asia and Latin America, and between Africa and the Caribbean.

Specialized record labels

The decisive factor will probably be the big record companies, which are making positive moves in this direction. Multinational companies have set up subsidiaries specializing in World Music to stimulate encounters between musicians. The hi-tech studios of Real World Records, for example, founded by Peter Gabriel in Bath (UK), produce a wide range of artists including The Musicians of the Nile, Tabu Ley from Zaire, Nusrat Fateh Ali Khan from Pakistan, The Guo Brothers from China and Elio Revé from Cuba. These musicians are also supported by WOMAD (World of Music, Arts and Dance), an organization founded by Peter Gabriel in 1980 to promote the arts of many different cultures through European concert tours, since live shows play a decisive role in an artist's career.

In order to reach the widest possible audience, is World Music being forced to "westernize" itself by the use of more modern instruments, rhythms or sounds? The answer is yes, judging from the great success of "mixed" forms of music which have a foot in both the traditional and the modern camps. But the answer is no insofar as the listening public is becoming increasingly familiar with strikingly different sounds. "The main thing is to offer artists the technology they need for top-quality recording, without tampering with their art, unless they themselves initiate an exchange," emphasizes Peter Gabriel.

In any case World Music is not always a direct product of the Third World. Some Western artists are also successful exponents of it. The Israeli singer Ofra Haza had a hit with a traditional Yemeni song. In France Caribbean groups such as Kassav', and a Gypsy group from the South of France, The Gipsy Kings, are increasingly popular. The Négresses Vertes, a French group of second-generation immigrants, recently provided the music for the American film *Dick Tracy*.

A surprising success

For the record industry, which sees World Music as a minor phenomenon although one with a promising future, these breakthroughs seem difficult to analyse. Why, for example, should the South African singer Johnny Clegg and his mixed band Savuka be so successful in Germany and France, while he is virtually unknown in the rest of the world? And since Clegg's music contains an anti-apartheid message, should we conclude that World Music is necessarily committed music? By assimilating disparate rhythms might it not lose its identity and become commonplace? Might too many concessions not compromise its freshness and innovative spirit?

For the moment, the communications society in which we live seems bound to encourage the development of World Music, and the confrontation of cultures which it promotes must surely help to discredit racism and intolerance. It remains to be seen what support for World Music will come from governments, the media, cultural associations, concert promoters, radio and television programme planners, and multinational record companies. Will World Music be the sound of the twenty-first century? ■

ALAIN GARDINIER
is a French journalist with a special interest in World Music. He contributes to a number of music magazines and television programmes.

listening

■ JAZZ

Shirley Horn.
You Won't Forget Me.
Horn (piano, vocals). Special guests: Miles Davis, Buck Hill, Branford Marsalis, Wynton Marsalis, Toots Thielemans.
CD Verve Digital 847 482-4.

A superb selection of romantic ballads interpreted by one of the great jazz pianists and singers, Shirley Horn, who was discovered years ago by Miles Davis but is still little-known outside the United States. Here she accompanies herself on piano with a consummate sense of harmony, supported by some brilliant jazzmen. One remarkable feature, in view of the rivalry between the two trumpeters, is the presence of Miles Davis and Wynton Marsalis.

Charlie Haden/Carlos Paredes.
Dialogues.
Haden (bass), Paredes (Portuguese guitar).
CD Polydor 843 445-2.

On a recording which is hard to categorize, American bassist Charlie Haden, who is known for his association with a number of avant-garde jazz musicians such as Ornette Coleman, dialogues with Portuguese guitarist Carlos Paredes, who plays an instrument resembling the *'ud* or Arab lyre. What they create is not so much jazz as a kind of subtle and original chamber music, with melodies evoking the court music of the Golden Age of the Iberian peninsula.

Jan Garbarek.
I Took Up the Runes.
Garbarek (soprano, tenor sax.), Rainer Brüninghaus (piano), Eberhard Weber (bass), Nana Vasconcelos (percussion), Manu Katché (drums), Bugge Wesseltoft (synthesizer), Ingor Antte Ailu Gaup (vocal).
CD ECM 1419 843850-2.

In Europe all kinds of musical influences are often found under the jazz label. The Norwegian saxophonist Jan Garbarek took to jazz in the early 1960s when he heard Coltrane's *Giant Steps*. But his work has an entirely personal touch, rooted in Scandinavian folklore, despite the presence of the Brazilian Vasconcelos and the West Indian Katché. Atmosphere, not swing, is the keynote of this charming record whose somewhat melancholy poetry brings to mind Nordic landscapes.

Robert Cray.
Midnight Stroll.
Cray (vocal, guitar), Richard Cousins (bass), Jimmy Pugh (keyboards), Kevin Hayes (drums, percussion), Ti Haihatsu (guitar), Wayne Jackson (trumpet, trombone), Andrew Lowe (tenor sax.)
CD Mercury 846652-2.

Robert Cray, whose resonant voice is rather like that of Otis Redding, sings a modern blues mixed with soul and funk. Yet the recurrent themes in his compositions are those of traditional blues: solitude, unfaithful women, unrequited love. The arrangements are pleasant, flowing and well orchestrated. A fine album from one of the most promising young musicians in the United States.

■ FOLKLORE

Gabon: Musique des Pygmés Bibayak, Chantres de l'épopée ("Gabon: Music of the Bibayak Pygmies, Epic Bards").
CD Ocora C 559 053.

With the griots of West Africa, the Pygmies are certainly the most extraordinary singers of the African continent. This recording, dedicated to the musicologist Pierre Sallée, who spent many years studying the music of Central Africa, enables us to fully appreciate their polyphonic talent and keen sense of rhythm. Full accompanying notes give detailed information on the context in which this music is performed.

Laos: Lam Saravane, musique pour le khène ("Laos: Lam Saravane, Music for the Khen").
CD Ocora C 559 058.

Much less widely-known than other forms of Asian music such as that of China, Japan, India and Bali, Laotian music has astonishing vitality. The *lam*, an improvised alternating song, is performed at community events in Laos—family gatherings, festivals, religious ceremonies. Other tracks feature the *khen* (a wind instrument of reed pipes on a wooden support), the flute and a small drum.

Grèce. Les grandes époques du chant sacré byzantin, XIVe-XVIIIe s. ("Greece. The Great Epochs of Sacred Byzantine Chant, 14th-18th c.").
CD Ocora C 559 075.

The Greek singer and musicologist Theodore Vassilikos has compared the original scores of these Byzantine chants with their transcriptions into the simplified notation developed by Archbishop Chrysanthos in 1818, and located alterations and omissions. In this collection his ensemble interprets the most significant works in this liturgical tradition. Of particular interest is "From on high the Prophets announced His coming", written by the famous 14th-century composer and chanter Ioannis Koukouzelis. The polyphony progressively unfolds to a sublime climax like some shimmering Eastern fabric.

■ POPULAR MUSIC

Intelligent Hoodlum.
CD A & M 395 311-2.

Rap music, which originated in the 1980s in the Bronx and other Black and Latin American districts of New York, is now known all over the world. The title of this disc encapsulates the biting irony of this poetry of the streets. Powerful lyrics and a driving rhythm defiantly evoke racial and political tensions in America. The militancy of such tracks as "Arrest the President", "No Justice, No Peace" and "Black and Proud" hark back to late 1960s' Afro-American music and poetry, the Black Panthers and the Black Muslims.

Zucchero Sugar Fornaciari.
Oro Incenso & Birra.
CD Polydor 841 125-2.

One of the most successful examples of Italian pop music today, an inventive cocktail of rock, funk, rap and disco, more angular and harsh than Afro-American funk and rap but full of humour. Among the American, British, African and Italian musicians in the line-up is the Rufus Thomas of "Funky Chicken" fame in the 1970s.

■ CLASSICAL

Johannes Brahms.
Paganini-Variationen op. 35: 3 Intermezzi op. 117; 6 Klavierstücke op. 118 ("Paganini Variations, Intermezzi, Piano Pieces").
Lilya Zilberstein.
CD Deutsche Grammophon 431 123-2.

Brahms is magnificently interpreted on this recording by the clear and vibrant playing of the young Russian pianist Lilya Zilberstein. The set of 28 variations on Paganini's famous theme, op. 35, was composed for the pianist Carl Tausig, then aged 21 and a friend of Liszt and Wagner.

Krzysztof Penderecki.
Polnisches Requiem ("Polish Requiem").
Ingrid Haubold (soprano), Grazyna Winogrodska (mezzosoprano), Zachos Terzakis (tenor), Malcolm Smith (bass), NDR-Chor & Chor des Bayerischen Runfunks, NDR-Sinfonieorchester.
2 CDs. Deutsche Grammophon 429 720-2.

A magnificent recording of a concert given with the North German Radio Symphony Orchestra, Hamburg. Composed between 1980 and 1984, This *Requiem* for four soloists, two mixed choirs and orchestra, draws its inspiration from both political and religious sources. The "Lacrimosa" was written to celebrate the unveiling of the Solidarity monument at Gdansk, and the "Agnus Dei" for the funeral of Cardinal Wyszynski in 1981. The sombre and majestic music, shot through with flashes of brilliance, reveals an admirable mastery of the polyphonic idiom.

Isabelle Leymarie ■
ethnomusicologist and journalist

Ernest Ansermet dirige Frank Martin ("Ernest Ansermet conducts Frank Martin").
Orchestra de la Suisse romande, D. Fischer-Dieskau, P. Fournier.
CD Cascavelle VEL.2001.

The centenary of the birth of Frank Martin—surely, with Arthur Honegger, the greatest Swiss composer of the 20th century—was not celebrated widely enough in 1990. The importance he attached to literary texts in his vocal works (as in his version of Shakespeare's *Tempest*), his dynamic sense of rhythm (as in his famous *Little Sinfonia Concertante*, which can be heard conducted by its composer on CD Jecklin JD 645-2), and the sustained attention he pays to the instruments, notably in his concertos and ballads, are just a few reasons why, almost 20 years after his death, Frank Martin deserves to be rediscovered.

Kurt Weill.
Die Dreigroschenoper ("The Threepenny Opera"), Songs from Berlin 1930.
Lotte Lenya, Marlene Dietrich.
CD Teldec 9031-72025-2.

Kurt Weill, who with Bertolt Brecht and a few others symbolizes the Weimar years in Germany and the turbulent artistic landscape of Berlin, settled in the United States in 1935. His American work is little known, but his earlier music has remained popular since 1945, largely because of the talent of his wife and favourite interpreter, Lotte Lenya. All Weill fans will be delighted that Teldec has reissued a selection of songs from *The Threepenny Opera*, recorded in 1930 by the cast of the first production, as well as songs from the films based on *The Threepenny Opera* and from *Mahagonny*, plus two extraordinary numbers by Marlene Dietrich.

Pierre Boulez.
Le visage nuptial/Le soleil des eaux/Figures, doubles, prismes.
Phyllis Bryn-Julson, Elizabeth Laurence, BBC Singers & Symphony Orchestra conducted by Pierre Boulez.
CD Erato 2292-45492-2.

The latest Boulez release, the umpteenth arrangement of the vocal pieces "Le visage nuptial" and "Le soleil des eaux" is characterized by a sumptuous and violent lyricism. The sound is equally magical in the third piece, for orchestra alone.

George Frideric Handel.
Alcina.
Joan Sutherland, Fritz Wunderlich, conducted by Ferdinand Leitner.
2 CDs. Rodolphe RPC 3256364.

Handel had many ups and downs during his long association with the London theatre, and in 1735, when he staged the opera *Alcina* (with a libretto after the Italian Renaissance poem *Orlando Furioso*), he was looking for a popular success to solve his financial problems. The enchantress Alcina (Sutherland) falls in love with Ruggiero (Wunderlich), whom she takes into her power. Happily, Bradamante (Norma Proctor) hurries to the rescue of her fiancé. The performance, recorded live in May 1959, is a fine memento of these celebrated voices in their prime.

Claude Glayman ■
journalist and music critic

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The Andalusian past
The largest Islamic necropolis ever found in Europe has been discovered at Granada, Spain, by archaeologists working on the site of an underground carpark and on disused land next to the 16th-century Royal Hospital. Vestiges of some 2,000 burials, several hundred tombs, two funerary monuments, and a number of ritual objects and pottery will throw new light on Andalusian history and on aspects of daily life in Moorish Spain between the 8th and the 12th centuries.

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Exploring the Universe together...
The American National Aeronautics and Space Administration (NASA), the European Space Agency, the Soviet Space Research Institute, and the Japanese Institute of Science and Astronautics are co-ordinating a programme of solar and terrestrial studies which includes the launching of several space probes after 1992.
"We share the same planet, the same solar system and the same Universe: let's explore them together," says David Southwood, a British member of the European Space Agency's scientific committee.

■ ■ ■

Inspiration for *Guernica*
Recent studies suggest that Picasso's celebrated painting *Guernica* may have been inspired by a 15th-century fresco entitled *The Triumph of Death*, which depicts the figure of death on horseback mowing down the rich and powerful. The fresco, at Palermo in Sicily, has recently been restored. The artist who painted it has not yet been identified.

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Fibre optics span the globe
In 1995, a trans-Siberian fibre optics link will come into service between Western Europe and the Far East, completing a worldwide communications network. Fibre-optics technology can instantaneously transmit the human voice, numerical data and images. A link between the United States and Europe has been open since 1988, and the United States and Japan were connected by a trans-Pacific cable in 1989.

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Spanish emigration to the Americas
Twenty Spanish scholars from universities in Europe and the Americas are writing a history of Spanish emigration to the Americas. Although the study is primarily concerned with migratory movements from Spain, it also covers other European countries. It analyses the consequences of the transfer of manpower, both for the receiving countries and for the countries of origin.
The 20 volumes of this monumental work are scheduled for publication in 1992, in time for the 500th anniversary of the encounter between the Old and New Worlds.

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Energy at sea
A number of windmills are to be installed on platforms at sea, 2 to 3 km from the Danish island of Lolland. They are expected to supply 60% to 70% more energy than windmills on land. Denmark hopes that 10% of its electricity will be supplied by wind-power by the end of the century.

■ ■ ■

A first for giant telescope
Astronomers building the world's largest telescope, the Keck telescope in Hawaii, have taken the first photographs of a spiral galaxy which resembles the Milky Way, 65 million light-years from the Earth. The telescope has a 10-m-diameter mirror consisting of 36 hexagonal sections, not a single piece of glass. The position of the sections can be adjusted by computer to correct distortions of the image.

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Antwerp, city of culture
The Cultural Capital of Europe 1993 will be Antwerp, Belgium. The city, one of the most prosperous river ports in Europe in the 16th century, was a major centre of Flemish painting. Although plans to transform Antwerp have been mooted since the Second World War, work has only recently begun on the rehabilitation of the old quays to create a residential area and a vast cultural centre.

■ ■ ■

Sculpture by computer
A British company has developed a computer-controlled system which can produce sculptures.
It consists of a laser camera which records the thousands of co-ordinates of a 3-dimensional object, animate or inanimate, in a few seconds, and a milling machine which reproduces the model according to this data. Possible applications include restoration work and the production of replicas of archaeological finds. The technique may also prove useful in plastic surgery and orthopaedics.

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Common past, common future
An international symposium on Arab-Spanish culture in history, held recently in Damascus (Syrian Arab Republic), was attended by eminent specialists from the Arab countries and from European countries, including France, Germany, Portugal, the Soviet Union and Spain. On the agenda was the way to a better understanding between Arab countries and the West through the study of the special relationship between the Arab world and Spain.

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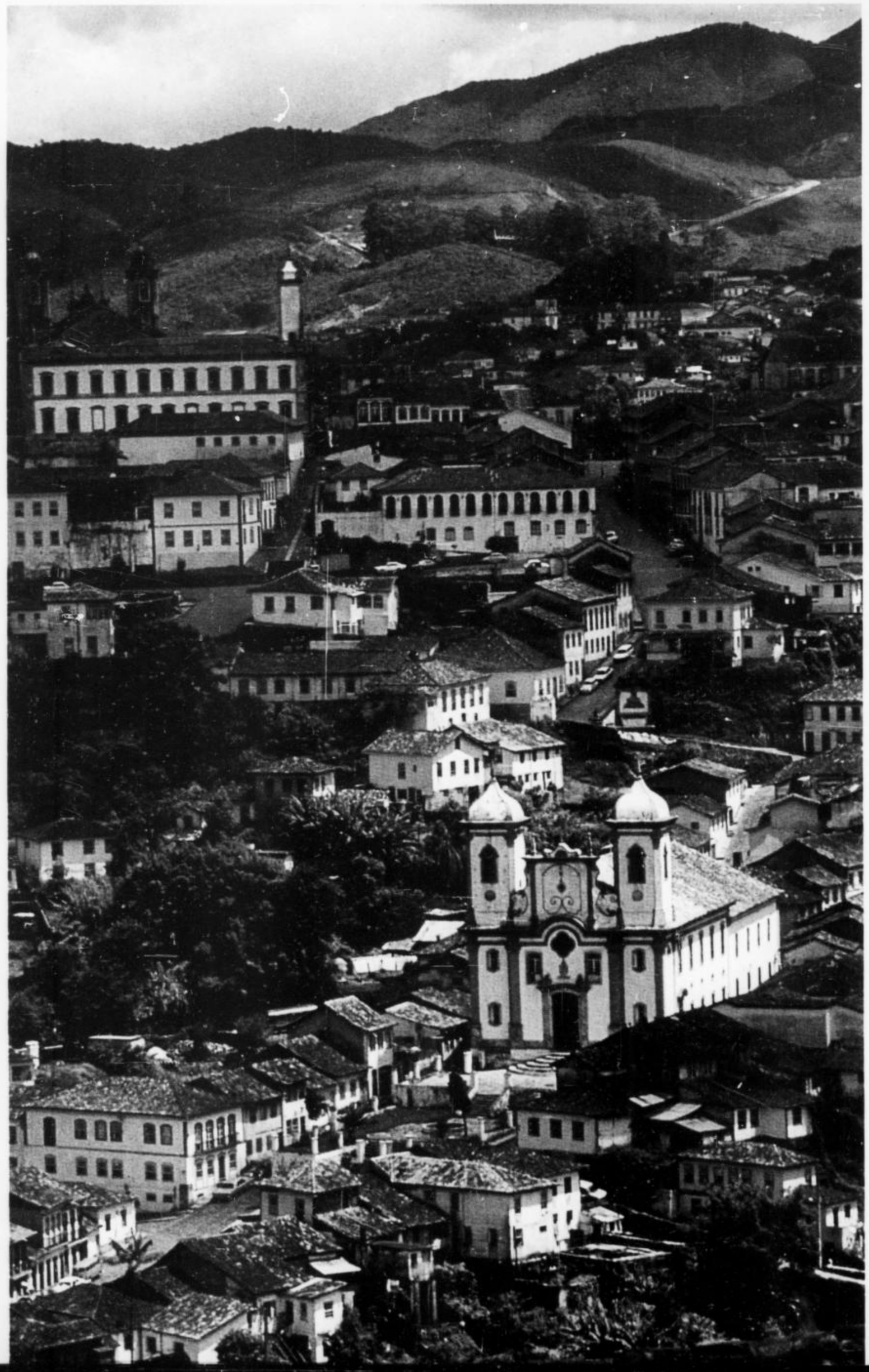
New MAB biosphere reserves
The creation of eight new biosphere reserves was approved by UNESCO's Man and the Biosphere (MAB) International Co-ordinating Council in November 1990: the coastal zone of El-Kala (Algeria); the Berchtesgaden Alps, the Waddensea of Schleswig-Holstein, and the moors of Schorfheide-Chorin (Germany); the mountain forests of Shennongjia (China); Mont Ventoux (France); the Maya national parks (Guatemala); and the Great Gobi desert (Mongolia).

Ouro Prêto, city of black gold

by Augusto C. da Silva Telles



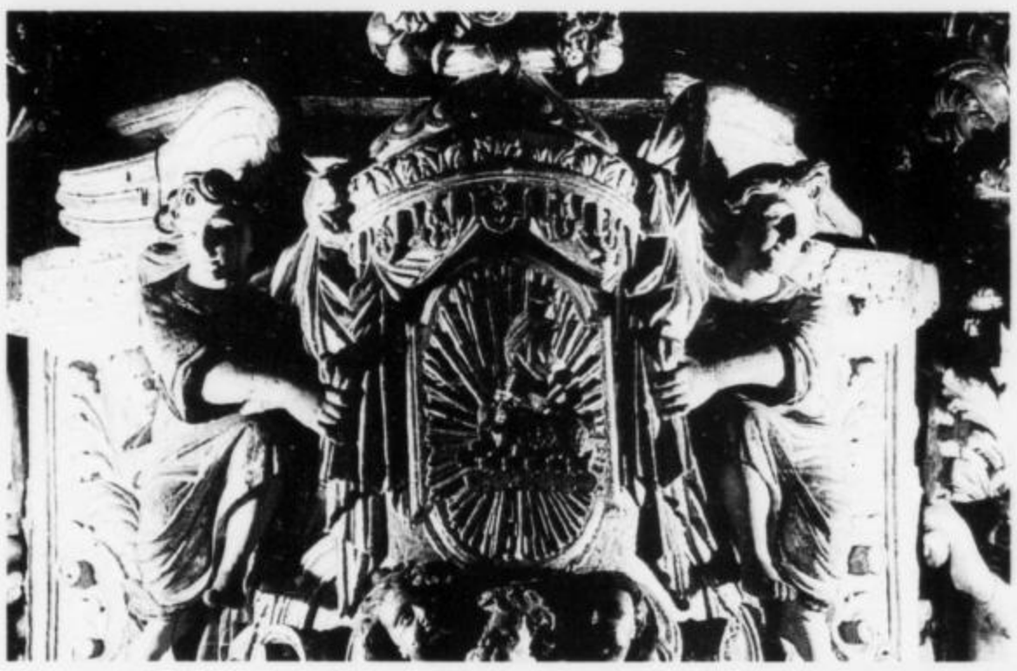
THE problems of reconciling the traditional and the modern are raised in particularly acute form at Ouro Prêto, a historic city in Brazil's Minas Gerais state which is today surrounded by an industrial zone and lies on an important highway.

Ouro Prêto (Portuguese for "Black Gold") grew out of a mining settlement which developed on the lower slope of the Serra do Ouro Prêto in the early eighteenth century when miners flocked into the region to prospect for gold in the rivers and on the mountain slopes. In 1711 it was given the status of a city and the name of Vila Rica. It is said that many houses used the entrances to mine shafts as their cellars.

In this rugged setting, narrow crooked streets and alleys were built along the mountain spur without any overall plan. The central square, today known as the Praça Tiradentes after a hero of Brazil's independence struggle, was not built until the mid-eighteenth century. Around it stand the old colonial governor's palace, the town hall and the colonial penitentiary.

The houses, of varying height, are strung haphazardly along steep, winding streets. Their picturesque beauty charms visitors and leads them from one surprise to another. The diversity of the site and the outstanding views are accentuated by the outlines of churches and chapels silhouetted high on the slopes or blending into the townscape. The French specialist Michel Parent has described how "This straggling urban fabric reveals itself gradually to the eye, which slowly comes to dominate it, bringing together near and far, narrow streets set deep in the valley, a bell-tower atop a distant hill.... It does not have the obvious advantage of a magnificent site, its beauty is at first hinted at, then becomes elusive, before finally yielding itself to the visitor."*

The mid-eighteenth century was the period of Ouro Prêto's greatest splendour, thanks to the abundance of gold which brought it wealth. The houses dating from that period were



Opposite page:
general view of Ouro Prêto, former capital of Minas Gerais state, Brazil.
Above: one of the steep and winding streets that lend charm to the old city.
Left: detail of the church of St. Francis of Assisi (1764), a baroque masterpiece by the architect and sculptor O Aleijadinho.

built in dressed stone. Decorated with a profusion of friezes and scroll-work, their architecture is more elaborate than the others. Many of these buildings are in Conde-Bobadela street and on the Praça Tiradentes, where the Casa dos Contos, the governor's palace, and the town hall are notable for the elegance and force of their late baroque style.

The religious architecture of Ouro Prêto is also remarkable for its originality, diversity and quality. Some of the buildings are among the most beautiful examples of baroque art not only in Brazil but in the world.

On either side of the spur of rock topped by the Praça Tiradentes are the Carmelite church of Our Lady and the church of St. Francis of Assisi. The architect and sculptor of these two churches was António Francisco Lisbôa, better known as "O Aleijadinho" ("the little cripple"). The church of St. Francis, which dates from 1764, was Aleijadinho's first project and his masterwork. It is remarkable for an ingenious combination of curves and ellipses, as well as the composition, of an astonishing expressive force, of the frontispiece carved in "pedra-sabão" (a kind of alabaster).

Problems of growth

Ouro Prêto was the seat of the military government and then the capital of Minas Gerais until the state administration was transferred to the new city of Belo Horizonte in 1897. As a result of this change in status and the exhaustion of its gold deposits, the city went into decline. If Ouro Prêto today still has a certain vitality, it is because of its position as a university city. When it was classified as a historic monument in 1938, it was living in the past. The city had virtually ceased to grow, and conservation activity was limited to religious and civic buildings.

In the 1950s, an aluminium plant was built at nearby Saramenha, and the highway between Saramenha and Bela Horizonte was metalled. Population growth and economic activity suddenly picked up again. Road traffic also sharply increased, largely because of the heavy trucks serving the Saramenha complex. This development threatened one of the finest jewels of Brazil's historical and artistic heritage, and the institution responsible for its safeguard asked UNESCO to provide technical support for Ouro Prêto.

In 1966 international specialists carried out studies with a view to defining possible zones of development, reducing demographic growth and preserving the old city. Their proposals were taken up and worked out in greater detail by a team of Brazilian technicians acting under the auspices of the federal, provincial and municipal authorities. A number of measures were adopted, including the construction of a new road around the site and a bus station outside the historic centre so that buses and coaches do not need to park on or near the Praça Tiradentes. Trucks and other heavy-duty vehicles are not allowed in the city, where a new urbanization zone is being created. Slopes subject to landslides are being consolidated. In 1979 a geological map was made of the whole urban area in order to indicate zones which can be built on without risk.

In December 1980, Ouro Prêto was included on UNESCO's World Heritage List. ■

* Michel Parent, *Protection et mise en valeur du patrimoine culturel brésilien dans le cadre du développement touristique et économique*, UNESCO, 1966-1967.

AUGUSTO C. DA SILVA TELLES,
Brazilian architect and historian, has been involved in the safeguarding of Ouro Prêto in his capacity as technical consultant to Brazil's Institute of the National Historical and Artistic Heritage. The author of many studies on Portuguese and Brazilian architecture, he was chairman of UNESCO's World Heritage Committee in 1988 and 1989.

Coping with uncertainty

by Michel Batisse

How far are science and scientists responsible for solving environmental problems?

THE many environmental problems with which our planet is faced stem from the capricious, unpredictable effects of "development", that is to say, the increasingly large-scale application of industrial, agricultural, medical and other techniques in economic and social life. Technology, the term we use to describe techniques in their totality, is today omnipresent, and upon it depends the functioning of the modern world. Technology is sometimes referred to as the daughter of science. Today, however, science and technology are closely intertwined in so many continuous lines of fundamental and applied research that it has become very difficult to distinguish disinterested research from research whose sole object is development.

Should we, then, blame science for being the source of those imperfect techniques that are degrading the human environment and squandering the natural resources of the biosphere? Some do not hesitate to make this criticism. They forget, however, that we cannot put the clock back. Some applications of science, especially in the fields of medicine and public health, have led to a rapid proliferation of the human species. Only through other applications, particularly in agriculture, has it been possible to feed these increased numbers. Nevertheless, we have every right to ask whether the science upon which our material civilization is based does not bear some responsibility for the way in which we handle the environment, through its fundamental approach rather than through its applications, and to try to find out how, and to what extent, it can help us to escape from the rut into which we have fallen.

Science as a conceptual attempt to understand the universe dates back to the ancient civilizations. The scientific method, which ensured the astounding progress of science, is a more recent development dating from the seventeenth century and emerging from the promptings of Bacon, Descartes and Galileo. Depending primarily on reasoned analysis, it attempts to break down seemingly complex phenomena into simpler, more easily measurable elements.

Based on a deterministic confidence in the order of nature, the analytical method rapidly met with dazzling success, particularly in the fields of mechanics, physics and chemistry. Its achievements gave rise to the notion of progress and opened the way to the great social changes of the Enlightenment in Europe and America. It led on triumphantly to the industrial revolution of the nineteenth century which is still going on today. There can be no question now of abandoning a tool that has been such an effective instrument in the advancement of knowledge and action.

The convergence of disciplines

The limitations of the analytical method become evident, however, when applied to phenomena of a higher degree of complexity where determinism no longer seems to operate and where the whole seems to be greater than the sum of its component parts. This is especially the case when the method is applied to questions concerning the life of living beings and of societies whose constituent elements react amongst themselves and with their environment. The striking successes being achieved in biology today are doubtless due to the fact that the scientific method has begun to go beyond its traditional, analytical and reductionist approach and to search for a convergence of disciplines in an attempt to achieve a better grasp of the complexity and unpredictability of living systems.

Environmental problems are by nature complex precisely because they involve human life and life in the biosphere. Because they are the incidental result of an excessively linear technology, they are linked together by a chain of multiple, often harmful interactions between factors that may not have been suspected. Because they are unforeseen and often menacing, they appear to demand urgent solutions. Although scientists have never been afraid to tackle difficult problems in fields they have chosen to explore, the environment suddenly faces them with extremely complex problems which are not of their choosing and which have to be handled with tools which are still basically imperfect. It is true that considerable methodological progress has been made in the study of complex phenomena and their evolution. Against the necessary interdisciplinary background two broad streams of scientific research have taken their place at the heart of environmental concerns: ecology—which involves the study of the totality of the interrelationships of human beings with one another and with their environment—and geography—which is today capable of tracing the links between the physical, biological, economic and social factors that clash and interact within a given territorial area.

Does this mean that science in its present state can provide the eagerly-awaited answers to environmental problems and in some way correct the errors engendered by its own applications? The answer is not so simple. Scientific research is not immune to the inertia of habit that affects all human behaviour. The interdisciplinary approach, which alone can enable real progress to be made in our understanding of complex systems, is still far from being accepted by the scientific community. This is because many scientists feel lost without their traditional landmarks and are afraid of being

Cattle enclosure in the Mount Kulal biosphere reserve (Kenya), where the capacity of the environment to support livestock is being studied as part of a project on arid lands within UNESCO's Man and the Biosphere programme.

taken in by worthless research work in fields they have not fully mastered. The long-awaited marriage between the natural and the social sciences has either not come about or has led to conflict and as a result a great deal of technically unimpeachable scientific research is either not applied or leads to failure simply because it is not adapted to sociological and economic requirements. Under these circumstances, the persistent development of the classic disciplines, especially when there is a possibility that they will lead to applications in industry, is still the most reliable route for researchers to follow in order to obtain honours and funding. The very structure of research institutions favours isolation between disciplines rather than contact with the realities of the outside world.

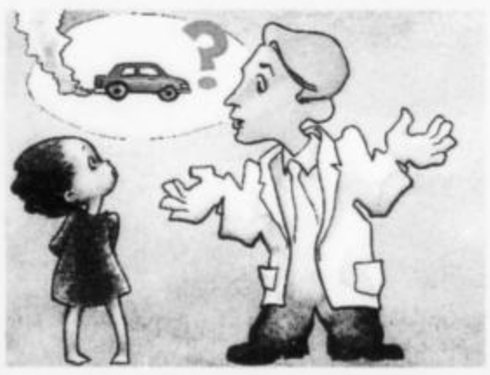
Truth and value judgements

In the last twenty years, however, praiseworthy efforts have been made to place the analysis and management of environmental problems on the soundest possible scientific basis, whether the concern be with threats to human health, with the deterioration of natural resources or with threats on a planetary scale to the climate, the oceans or the atmosphere. UNESCO's Man and the Biosphere (MAB) Programme is one example of a remarkable attempt to explore, on an interdisciplinary basis, possible sustainable use of terrestrial ecosystems and to provide useful information for those who have to make decisions concerning their management.

It is not up to scientists to make decisions. Scientists can attempt to evaluate the risks involved in using this or that technique and shed light on ways of handling those risks, thus helping to ensure the avoidance of accidents or errors. Science attempts to distinguish what is true, what is possible, probable or certain, but it does not make value judgements. It would be a serious misjudgement of the nature of science to ask it to decide what is right and what is wrong. Every decision, even when it is based on all the knowledge available, implies a judgement of value and of expediency. In the environmental field, in which the interests of individuals, businesses, local authorities, the state, or even the whole of humanity are involved, every decision is necessarily political rather than scientific. The same is true of decisions in the economic sphere—in industry,

We do not know exactly...

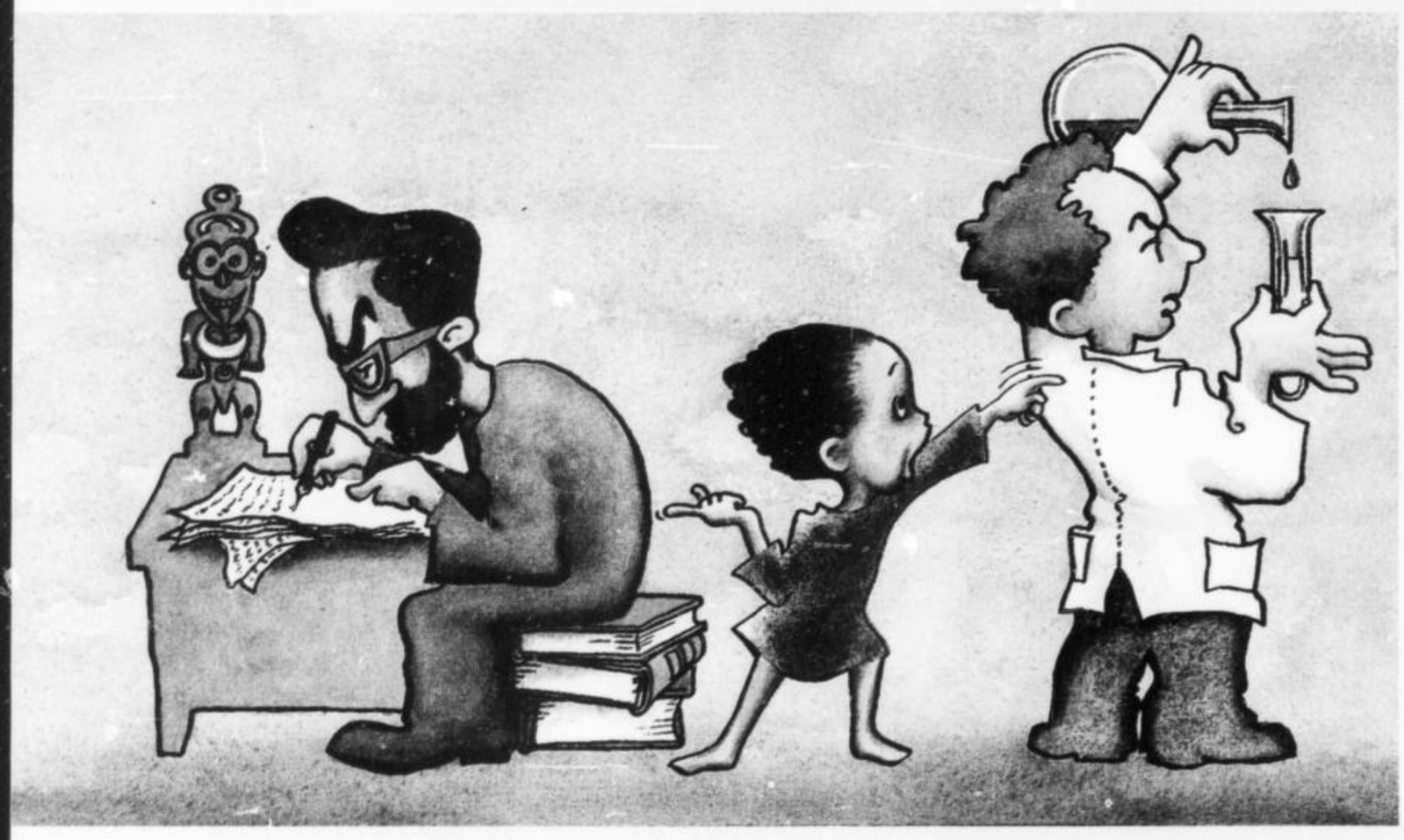
why the climate is getting warmer...



nor what level of biological diversity is necessary to sustain ecosystems...

nor why the ozone layer is thinning.

But we can't afford to wait until we know everything. We must act!



"The interdisciplinary approach is still far from being accepted by the scientific community."

agriculture and transport, and in the social sphere—in housing, employment and security. In none of these fields, however, is the scientist called upon to act as arbiter.

Why then do we turn so readily to the scientist when environmental questions come up? Perhaps because, when faced with unexpected, worrying, complex problems, which seem to cast doubt on the very basis of our calm belief in material progress and the benefits of technology, the authorities feel an overwhelming need to understand and to be reassured. We appeal to the scientist as we would to a magician or a judge. We want to know the truth about all the alarming threats and all the potential catastrophes we hear people talking about. Governments and the general public look to science to provide certainties upon which action can be based.

The difficulty—and it is a considerable one—is that there are no certainties about many environmental problems because of their extreme complexity, their novelty and their chaotic, unpredictable evolution, coupled with the multiplicity of the interactions involved. These are problems that have a profoundly disturbing effect on our ingrained habits, and yet we may not even be sure that they really exist. We do not know, for example, precisely what level of biological diversity is necessary to sustain the functioning of ecosystems. We do not really know why the ozone layer in the upper atmosphere is thinning. There is no undisputed certainty about the greenhouse effect, which is thought to be caused by the accumulation of carbon dioxide and other gases of industrial or agricultural origin, and its consequences remain largely unpredictable.

Yet at the same time, responsible scientists are telling us that all these things are happening, that the loss of species diversity related to the felling of the tropical forests, the influx of ultraviolet rays related to the destruction of the ozone layer, and the warming up of the climate due to the oil and coal we so light-heartedly burn, are all just around the corner, even though we do not know what is really going on.

Hard decisions and soft information

Faced with this problem of uncertainty, the conservative reaction of certain leaders is simply to say that more research must be done before any action is taken. It would not be easy for a government to decide that it had, for example, to tax motorists on the gases emitted from their exhaust pipes. Such an attitude, however, might very quickly be seen as irresponsible, if not criminal, with respect to future generations. It is clearly necessary to continue and intensify research in an effort to find out more about these phenomena which are so complex that they may never be fully mastered, but it would be wrong to delay acting until the situation worsens. Regardless of the uncertainties, action

Reforestation at Namche in Sagarmatha National Park (Nepal), a site inscribed on UNESCO's World Heritage List.

MICHEL BATISSE, French engineer and physicist, is internationally known for his work on the environment and natural resources. Currently a consultant with UNESCO and the United Nations Environment Programme, he has headed the Blue Plan Regional Activity Centre for the Mediterranean at Sophia Antipolis, France, since it was created in 1985.

must be taken if we have legitimate grounds for thinking that time is not on our side.

This is what was done recently to limit the production of the chlorofluorocarbons (CFCs) that are destroying the ozone layer. In this case it was possible to draw up an international agreement because a specific product with clearly defined uses was involved, because industry was ready to provide substitute products and because compensation could be made to developing countries that would be handicapped by this technical change. The important thing to remember, however, is that this exemplary action was undertaken despite uncertainties about a number of scientific aspects of the problem, thus avoiding further deterioration of the ozone layer while waiting for absolute certainties to be obtained. Imperfect scientific knowledge of environmental problems should never be an excuse for inaction. As a British researcher once remarked, governments today have to take hard decisions on the basis of soft information.

To aid them in this formidable task, governments naturally try to base their action as far as possible on scientific opinion. They hope thus to give a certain legitimacy to their decisions by basing them on accepted knowledge and thus to shelter behind the objective façade of science. The major economic leaders tend to follow their example, as do associations for the defence of the environment and of the consumer. Thus scientists find themselves torn between various conflicting interests, each of which seeks to make the scientist an advocate of its own cause. Because of the divergent interests of states the struggle is increasingly coming into the open at the international level. Various countries have laid down standards of chemical quality for certain food products, on the basis of so-called scientific norms, with the sole aim of preventing the import of such products. In these circumstances, what becomes of scientific rigour and objectivity?

"The scientific culture must become part of the daily experience of each one of us."

Experts and the scientific ethic

The fact is that when they are asked to give their opinion on these complex questions, scientists no longer act as scientists, in accordance with the search for a consensus that is part of the scientific approach itself, but as experts called in to provide arguments in support of one theory rather than another, so as not to harm the interests of those who have commissioned them. This is a thankless role and one which some do not play, preferring to remain within their ivory towers. However, if scientists or independent engineers are not prepared to assume this role, who will play it? Would it be better to have administrators, jurists, or engineers employed by the great state institutions undertaking this task on their own, with the attendant danger of confounding judge and plaintiff, as we have seen from time to time in military, nuclear and even forestry matters? It would be better to gather together a sufficient number of competent scientists from a variety of disciplines and to observe how far they agree.

At all events, the important thing is for scientists, in their role as experts, to retain the same ethical standard by which they are guided in their scientific work. The political choices facing governments in environmental affairs will never be easy, especially so long as ecology is not fully integrated into the economy. But in the end, given the uncertainties that will always persist, these choices must be guided by respect for the scientific ethic.

The situation is somewhat similar with regard to public opinion and to associations. Here too there is a need for expert advice if wrong or unrealistic paths are to be avoided. Here too there must be an appeal to scientists, even though they may not be inclined to put their knowledge on display or may fear that, by co-operating with the media, they may incur the disdain of their colleagues. This descent into the arena does not give scientists the right to use the prestige of their scientific status to express dogmatic opinions, but it should provide public opinion, whether as partner or privileged adversary of the government in democratic discussion about the environment, with reliable information about the issues, thus avoiding cacophonous arguments and arbitrary judgements. It means that scientists, who are too often regarded as inaccessible, obscurantist or indecisive, retain the credibility earned by their mastery of a difficult branch of knowledge. They must emerge from their habitual reserve and not hesitate to speak out against policies they consider harmful or activities they see as potentially dangerous for the environment.

Public opinion may also fear that scientists are accomplices of the government or of powerful economic interests. Here, perhaps, is an opportunity for scientists, in acting as experts for the government on the one hand and for movements for the defence of the environment on the other, to place the scientific ethic at the high level it should maintain in these difficult debates and thus to acquire a more highly respected role and power within modern society, just as Bacon recommended over 350 years ago.

The rehabilitation of science in the environmental field—where it has been rather too often accused of being the prime cause of many problems and of failing to provide solutions—depends not only upon scientists but also upon the public at large. Although during the past fifty years the applications of science have become so widespread as to upset all our behavioural and value systems, how many of us have made the effort to understand the impulsions and constraints of this technological universe now unfolding before our eyes? How can we expect governments, the world community and motivated public opinion to stem the degradation of the planet while this scientific culture, which influences our lives and ensures our survival, is still not fully integrated into the daily experience of each one of us? There, perhaps, lies the real challenge we must face if we are to achieve responsible management of our uncertain future. ■

The Silk Roads

Threading through the past

by François-Bernard Huyghe

Scholars taking part in UNESCO's Maritime Silk Roads expedition highlight the complexities of exchanges along the great trade routes of long ago

AFTER leaving Oman and calling at Karachi, Goa, Colombo and Madras, the Maritime Silk Roads expedition embarked on the second half of its voyage at Phuket in Thailand. Although they are following a route which traces a single line across the map, the participants realize that its ramifications are labyrinthine in their complexity. Each discovery of a new site, each new lecture and symposium, fits into a pattern and sets a vast network of travel, trade and communication in a new perspective.

The stop-off at Karachi was an opportunity to reflect on the trading civilization of the Indus, the Aryan invasions of the Indian sub-continent, and the relations between Sind and Central Asia, Iran and China which go back to the last millennium of the pre-Christian era. At Goa we were in the Portuguese world, with its privileged links with Malacca and Macao. Sri Lanka evoked thoughts of the Greco-Roman world, of Arab trade, and the spiritual influence of an island which played a leading role in the spread of Buddhism. In Madras, the abundance of research on relations with the Roman world was only rivalled by that of studies on the links between Tamil Nadu and South and Southeast Asia. So many threads to be unravelled from such a tangled skein!

The general term "Silk Roads" is also used to designate trade routes in commodities such as porcelain, spices and incense. But there are other routes whose scattered traces invite study. One of them is that taken by Roman coins. It is not surprising that Roman coins should have turned up all along our route, but when two numismatists put forward some ingenious hypotheses at a seminar held in Madras they prompted a number of more general historical questions. How important was the heavy drain of coinage along the trade-route with India which caused the Roman emperor Tiberius such alarm? What role did the emperor's entourage play in this? When were Roman coins prized at their nominal value and when according to their weight in metal, and why? Tiny coins lost at the other end of the world are evidence of crises and conflicts that were agitating a distant empire.

Another specialist on board the *Fulk al-Salamah*, the Ship of Peace, is studying even smaller objects, the beads with which necklaces were made. His field of research begins in the third century BC, and is based on the different shapes of rough glass beads. From the region of what is today Pondicherry it is possible to trace the steps of Indian glassmakers to Sri Lanka, Viet Nam, Thailand and Malaysia and learn something about the beliefs and hierarchies that existed in those societies. Perhaps we should think in terms of a "glass bead road" or a "seashell road"? After all some seashells, particularly those from Oman, were used for centuries as a unit of exchange. The type, location and quantity of shells found along the Silk Roads warrant scholarly investigation.

Even the simplest and most tangible vestiges of trade raise questions with complex answers. Such vestiges amply prove, as we might expect, how ancient, regular and intensive were the relations between cultures and how rich was their common heritage. But artefacts and coins always have a value that is not merely utilitarian. They indicate that trade routes are also channels of communication for technology, ideas, art forms and beliefs.

A speaker at one seminar pointed out that while many scholars have abandoned the concept of cultural "influences" on the grounds that it is too simplistic, they have often replaced it by the concept of "interactions" which is hardly more illuminating. As they try to decipher the clues left by their predecessors, modern travellers along the Silk Roads are constantly struck by the irrelevance of some of the categories we use. Stones, pottery, artefacts, stories, maps and vestiges are the external transcription of an inner need that impels certain peoples towards maritime adventure, each in its own different way.

The mysterious Indus civilization

The gaps in our knowledge often whet our curiosity about the values which lie behind rare vestiges from the past. In Pakistan, for example, our programme of seminars and

FRANÇOIS-BERNARD HUYGHE, French writer and journalist, is a former member of UNESCO's Division of Cultural Heritage.

visits highlighted the importance of the mysterious Indus Valley civilization which disappeared 3,500 years ago. A visit to Moenjodaro, whose discovery in 1921 was a milestone in the history of archaeology, prompted a host of questions. All that survives of this great monument to a civilization whose writing has still not been deciphered, a metropolis that was continuously occupied for almost 2,000 years and may well have had a population of some 45,000, are the ruins of a brick city built on a remarkably regular grid system of street layout.

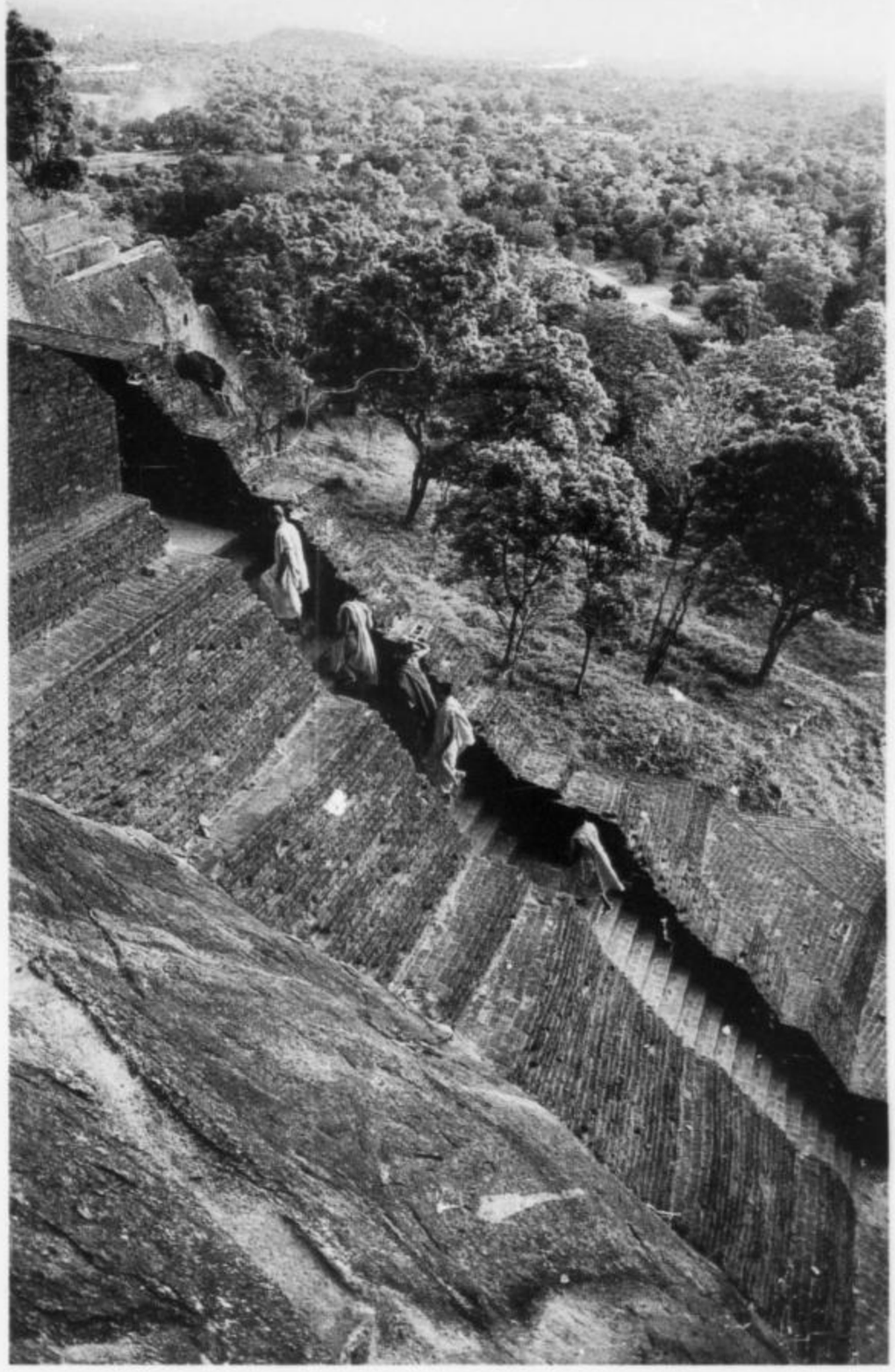
The overall impression is one of austerity. The houses, rebuilt one above the other in the course of the centuries, are virtually identical. The drainage system and the public baths are evidence of an important infrastructure. The discovery of standardized weights and seals throughout the area influenced by the Indus civilization suggests the existence of an efficient mechanism of control and perhaps of a powerful administrative framework. But the few vestiges and works of art of this great civilization transmit a laconic message that is not fully understood. We know next to nothing about the myths and beliefs of one of the first peoples who opened up the great trade routes of the Eurasian continent.

But whether we are faced with a plethora of traces or, as in the case of the Indus civilization, with very few, we come up against the same uncertainties. What type of dialogue was established along the Silk Roads over the centuries, and what did it mean for those who lived in its orbit? There is an urgent need for conceptual guidelines to help us understand the effects of this process whereby so many peoples and forms of expression came into contact with each other. Perhaps we should examine the spiritual as well as the physical dimensions of the Silk Roads.

Gods and places

From Sri Lanka onwards the maritime Silk Roads intersect with the route along which Buddhism spread. If the conversion of Sind to Islam and of Goa to Christianity are major events, the way in which this island once known as Taprobane became the centre from which the Buddhist doctrine of Enlightenment was disseminated illustrates the relationship between gods and places.

Perhaps something predisposes the island to play this role. The geography of the "lion kingdom" has an imaginary and a spiritual, as well as a physical, dimension. The cartographers of Antiquity, following Ptolemy, attributed to Taprobane a size and a location—on the very edge of the world—in keeping with its symbolic importance. The mountain of Samanakuta or "Adam's Peak" is a famous place of pilgrimage. At its summit is a hollow resembling a human footprint which is venerated by pilgrims of the "religions of the Book" as that of Adam after he was banished from the Garden of Eden. The great Arab traveller Ibn Battuta came to meditate at the foot of the mountain, "forty leagues from Paradise". Pliny's stories about the Isle of Emeralds fed the Western imagination until the Middle Ages and inspired extravagant depictions of fields of precious stones and houses inside the shells of giant snails.

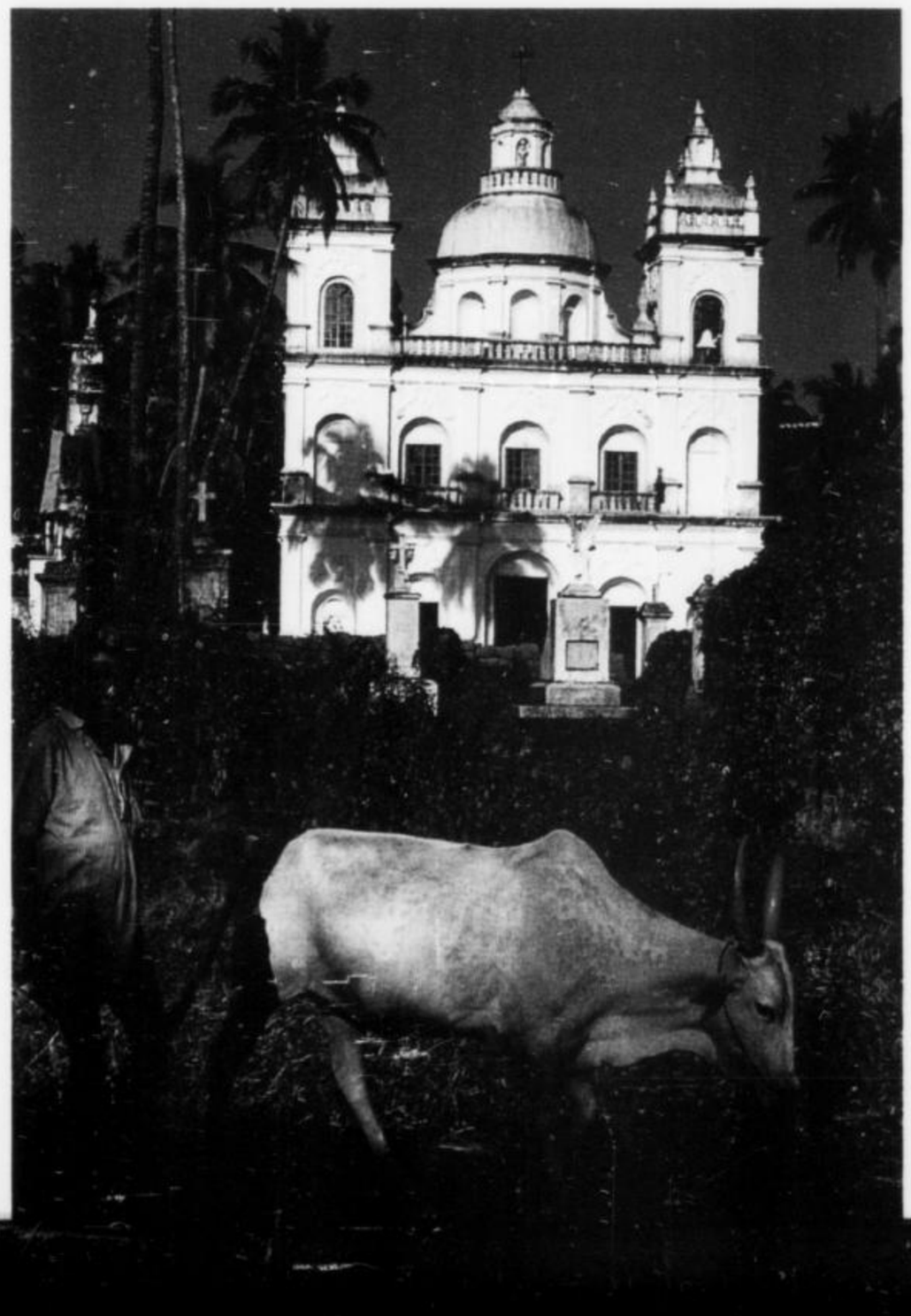


But Buddhists believe that the hollow is the footprint of Gautama Buddha. Around 250 BC, the Indian emperor Asoka sent his son Mahinda to Sri Lanka to convert the sovereign to Buddhism. Later, Mahinda's sister followed him with a branch of the Bo tree under which Gautama was sitting when he attained Enlightenment. The sacred tree which grew from this branch can still be seen at Anuradhapura, Sri Lanka's ancient capital. From there the doctrine of Lesser Vehicle Buddhism spread through Burma, Thailand and Southeast Asia. But the history of Anuradhapura, a town noted for its many monasteries and the world's tallest stupa, is entwined with the fortunes of another venerated relic, the Buddha's tooth, which was sent there in the fourth century. From then on the power of the reigning dynasty was linked to possession of the tooth-relic which, together with the capital, was moved from place to place under the pressure of invasions.

When, at the end of the fifth century, King Kasyapa built an extraordinary fortified palace and gardens on a 200-metre high rocky outcrop at Sigiriya in the heart of the jungle, his enemies talked of heresy. In the eleventh century Anuradhapura was sacked by the Cholas from southern India. Polonnaruwa became the island's capital, remaining so for three centuries, and many Buddhist monuments were built there. Finally the relic was taken to Kandy, the capital until the arrival of the British, where it still remains.

Religion is omnipresent in Sri Lanka. An order of Buddhist nuns was founded there and spread overseas. Men of faith and wisdom travelled there in search of purity of doctrine, among them the monk Faxian who left China in the year 399 and stayed on the island for two years. Missionaries and pilgrims set out from Sri Lanka on journeys that took them all over Asia. Travelling and taking root, sea and land—these two poles mark the history of Singhalese Buddhism.

The participants in the maritime expedition have come to realize that the spread of Buddhism was the result of factors such as geography, maritime technology and trading networks, as well as economic and political forces. But they have also learned that these causes alone do not explain the conversion of Sri Lanka—a mystery which exploration of the Silk Roads does not unlock. ■



Opposite page, the Buddhist sanctuary of Dalada Maligava (Temple of the Tooth) at Kandy (Sri Lanka).
Above: a staircase hewn from the rock leads to the ancient royal residence of Sigiriya (Sri Lanka).
Left: the Calangute church, Goa (India).

LETTERS TO THE EDITOR

■ The temple of the heart

As a regular reader of the *UNESCO Courier,* I should like to express a Protestant viewpoint about your issue on "Sacred Places" (November 1990).

Protestants have never sanctified places in the same way as Catholic and Orthodox Christians. They believe that the human heart is the only repository of the sacred. This explains why Protestant architecture is less elaborate and Protestant places of worship are more functional. Many evangelical Churches today hold their meetings in marquees or cinemas.

In most cases this lack of ornamentation is not due to lack of taste or means. It is an affirmation that the sacred does not have a geographical location, since the "only temple of God is the human heart".

This comment may seem irrelevant to the preoccupations of UNESCO. This is not the case. Current events show that many recent conflicts are polarized around sacred places.

As part of your mission to work for peace through reflection on cultures, you should have pointed out that the sanctification of a place all too often leads to contempt for others and sometimes to hatred and war, and that education for peace should entail the difficult but necessary task of desanctifying objects and places. The Protestant Churches have been pioneers in this respect.

This letter is intended to bring the efforts of the Protestant Churches to your readers' attention. It in no way reflects a desire that everyone should become Protestant.

Michel Bourguet
Dunkirk
(France)

■ The geophysics of the sacred

It was extremely instructive to read in your November 1990 issue about the variety of the forms and places through which different civilizations and cultures express their search for the sacred.

Some of the articles evoke the role played by the siting of sacred buildings and places of worship. My profession of architect, and my personal interests, have led me to give some thought to these matters.

Religious buildings fulfill the architectural purpose of enclosing space, but in them it seems that our senses are more strongly affected than they are in secular buildings.

Our behaviour and reactions are influenced by various physical factors whose impact on the human body is still not fully understood.

These physical phenomena emanate from the environment and have a cumulative effect. Applied geophysics describes them as the gravimetric field, which is not uniform and depends on such factors as local geological variations; properties of the Earth's magnetic field such as intensity, orientation, declination; the ionization of the air, which has a direct effect on health; radioactivity; the speed of diffusion of seismic waves; the electrotelluric currents which run through land and sea.

Through physical and sensory experiments I have discovered that religious buildings in France—I am particularly interested in Romanesque churches of the 11th to the 14th century—are built on sites with distinctive geophysical characteristics. Thus I have noted that there is almost always at least one watercourse underneath these monuments, as well as geological faults.

Of course, the symbolism of ancient buildings must also be considered alongside these invisible forces, and the art of the builders and their understanding of harmonious relationships also contribute to the construction of a building and to its echoes in a receptive mind.

Bernard Arditti
Manosque
(France)

■ Middle Earth

I should like to point out that in your excellent issue on "Sacred Places" you state that the Great Stupa at Sanchi is in northern India. In fact the stupa is in the state of Madhya Pradesh (which means "Middle Earth") in central India, and is itself right in the centre of the state.

Elisabeth Beaumont
La-Celle-Saint-Cloud
(France)

We apologize to readers for this error. Editor

■ Rejecting poverty and shame

In 1991, thanks to the *UNESCO Courier,* art, poetry and culture will reach very needy people all over the world and will help to alleviate the shame, humiliation and dependence which they refuse to accept. Thank you for this excellent magazine.

Mouvement International ATD
(Aide à Toute Détresse) Quart Monde
107, avenue du Général Leclerc
95480 Pierrelaye (France)

Quart Monde, *the French-language quarterly published by the Institut de Recherche et de Formation aux Relations Humaines du Mouvement International ATD Quart Monde, seeks to be "a means of exchange and reflection for all those who reject extreme poverty and exclusion. Each issue presents a dossier on a social question not only from the viewpoint of specialists but of the needy and those who support them."* Editor

■ Addresses wanted

We humans who speak the same language should communicate, speak and write to one another, share the convictions that motivate us, in order to know others, to discover new horizons, to force back the many-headed Hydra of ignorance, the source of all ills.

Let's exchange our addresses!

Bertrand Hue
46, rue August Moutié
78120 Rambouillet
(France)

■ Timeless values

The photograph in chiaroscuro on the cover of your December 1990 issue ("The Enigma of Beauty") is one of the most beautiful and moving cover illustrations I have seen in the *Courier.* The silent immobility of an anonymous couple before Barnett Newman's vast canvas is a tribute to artists, those creators of human values.

Barnett Newman, who died in New York in 1970, wanted to refine art to its most fundamental significance. In so doing, he took abstraction to the limits of asceticism.

His immense, monochrome canvases, devoid of any allusion to reality except a few vertical bands, are "fields of colour" offered for contemplation. Through this fascinating expanse of colour, the artist invites us to meditate on fundamental, timeless, metaphysical values.

This photograph, quite apart from its plastic qualities, delivers a marvellous message of peace, a pause for reflection in a world of agitation and uncertainty.

Henry Christiaën
Grenoble
(France)

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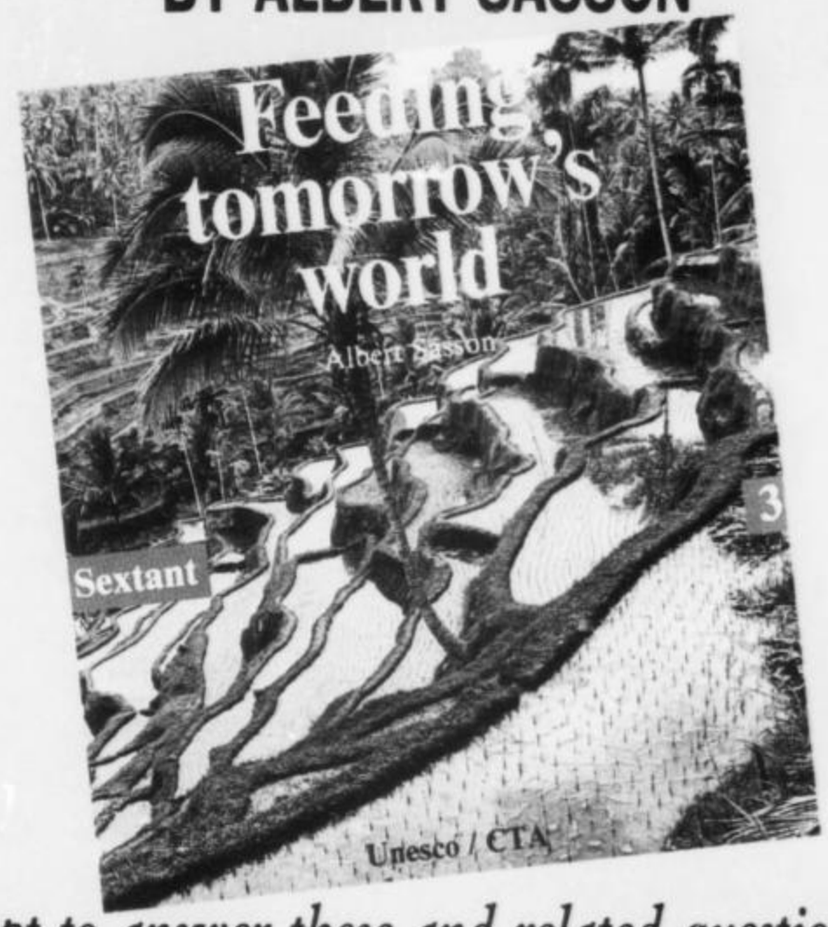
Will the benefits of the Green Revolution of the 1960s and progress in food production meet the needs of the world population at the end of this century?

Will the "biotechnical revolution" offer a solution to world food problems?

How can agricultural development and self-sufficiency be attained, particularly in developing countries?

FEEDING TOMORROW'S WORLD

BY ALBERT SASSON



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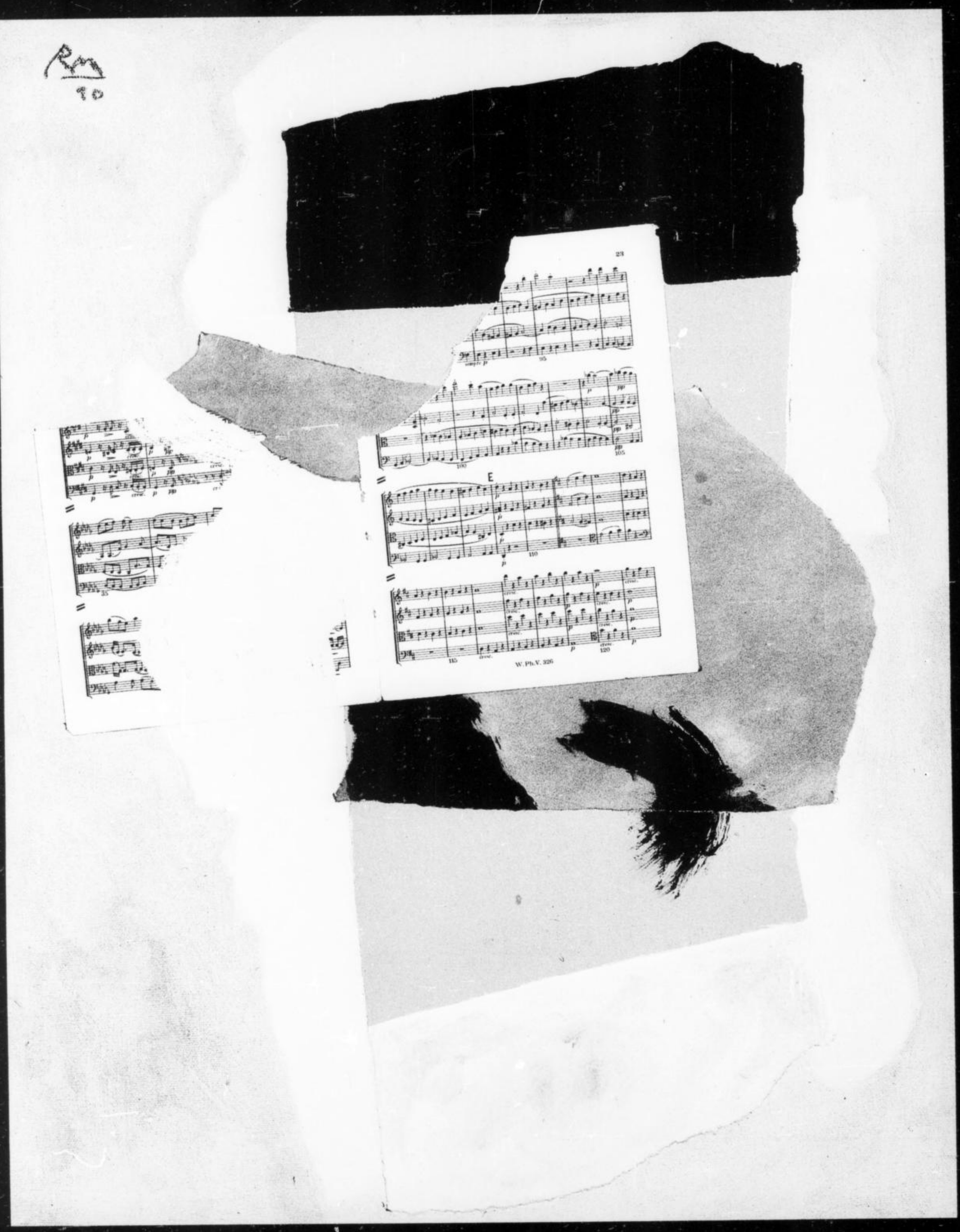
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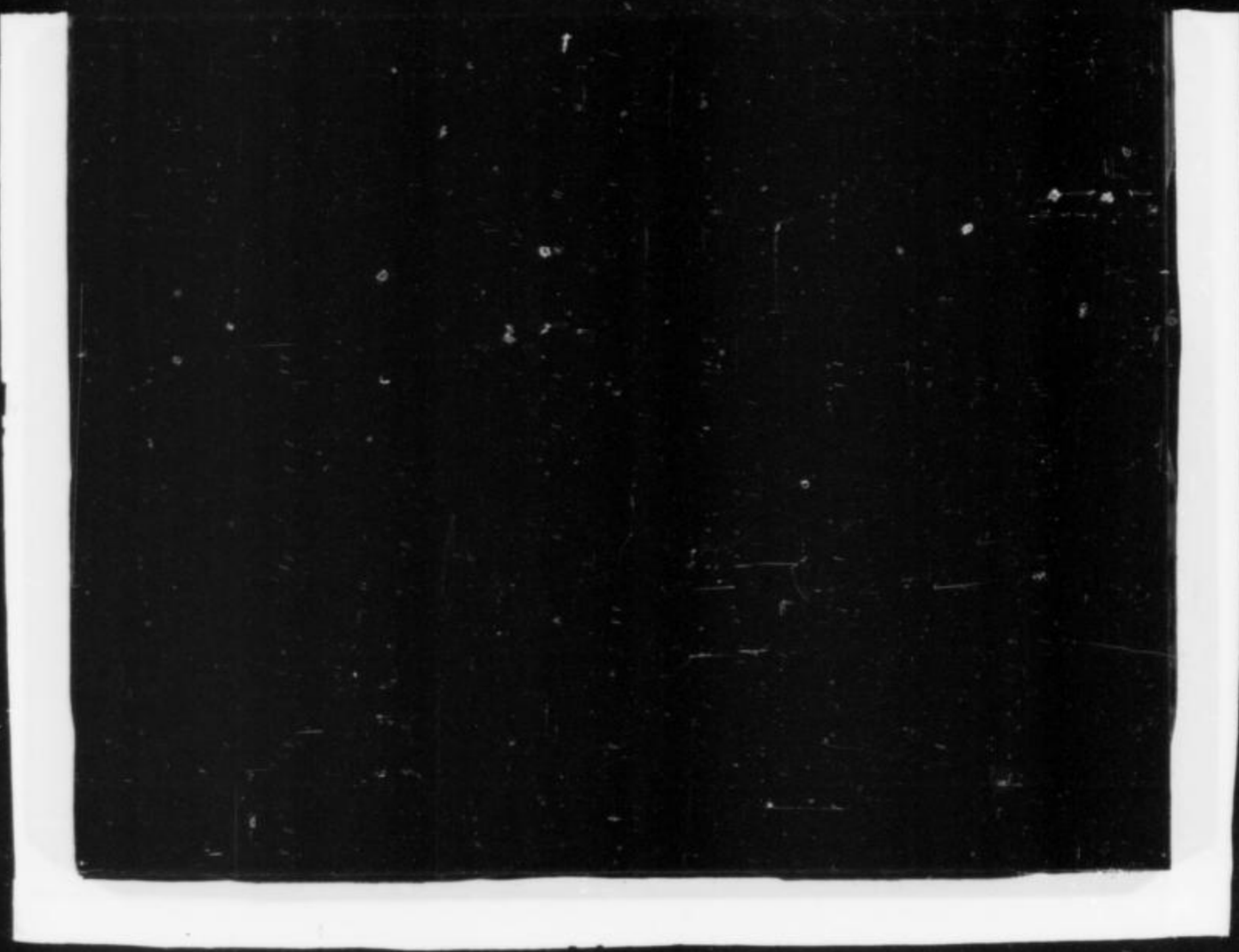

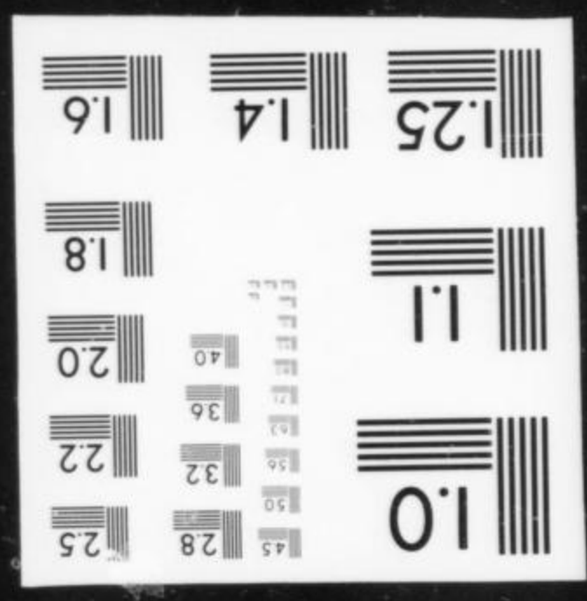
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